26 September 2014

GMCA
GREATER MANCHESTER COMBINED AUTHORITY

AGMA
ASSOCIATION OF GREATER MANCHESTER AUTHORITIES

Greater Manchester Spatial Framework – Stage 1: Initial evidence on future growth

Consultation Document – September 2014

Contents

1. Introduction

1.1 Greater Manchester comprises the ten local authorities of Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford, and Wigan. Although each has its own identity, unique strengths and opportunities, and individual issues and challenges, increasingly we think and act as a single economic entity with a single labour market, high levels of connectivity and interdependent towns and cities.

1.2 We have a long history of collaboration through the Association of Greater Manchester Authorities (AGMA) strengthened further by the establishment of the Greater Manchester Combined Authority (GMCA), the Greater Manchester Local Enterprise Partnership (LEP) and Transport for Greater Manchester (TfGM). This reflects how our policy making is underpinned by a common commitment to all of our communities, driven by a shared ambition to increase the prosperity of the people of Greater Manchester. Greater Manchester has become increasingly interconnected over time, including labour, housing and retail markets, transport networks, cultural attractions, education and training opportunities and the provision of public services.

1.3 We are of course not an island. We share our boundaries with several other local authorities and we interact to different degrees with each. For example, there are strong relationships between districts in Greater Manchester and neighbourhoods in Cheshire East, Warrington, Rossendale, High Peak, Calderdale and Kirklees. Our Regional Centre provides employment for those living far beyond our boundaries and equally some of our residents take advantage of employment opportunities elsewhere.

1.4 Increasingly however we are looking to strengthen our relationship with other cities. While the individual cities of the North may be relatively small, experience in the most prosperous European nations shows that clusters of highly interconnected cities can perform very well in economic terms. The North of England population is similar to the Netherlands and bigger than London, Tokyo and New York. The challenge and opportunity is to achieve the benefits of a larger market that greater connectivity across the North can bring. Faster growing regions are characterised by better infrastructure and connectivity to global markets. One North[1] is our strategic proposition for transport in the North. Working with the city regions of Leeds, Liverpool, Newcastle, Sheffield and Hull, One North reflects the critical importance of transport for vibrant, sustainable economic growth across the North.

The Greater Manchester Spatial Framework Development Plan Document

1.5 It is within this context that the GMCA agreed in January 2014[2] that we should bring forward a Spatial Framework focusing on identifying our future housing and employment land requirements. This has evolved into a proposal to

[1] http://www.manchester.gov.uk/downloads/download/5969/one_north
[2] http://www.agma.gov.uk/cms_media/files/gmca_agenda_31_1_14_web_merged.pdf

produce a Greater Manchester Spatial Framework Development Plan Document (GMSF). The GMSF will enable Greater Manchester to manage the scale and distribution of development in a way that an informal, non-statutory planning document could not.

1.6 The GMSF will provide the overarching framework to manage the supply of land across the conurbation thus supporting sustainable growth over the next two decades. It will provide the basis to secure the strategically important sites which will drive future economic growth and bring forward the supply of land necessary to accelerate housing development to meet forecast housing requirements.

1.7 The purpose of the Spatial Framework is to:

- provide the basis for an informed and integrated approach to spatial planning across the city region, through a clear understanding of the role of our places and the relationships and connections between them;
- identify and evidence the level and type of growth we should be planning for;
- identify the market requirements of our growth sectors and ensure we have an appropriate supply of land to meet these requirements;
- provide the context that districts need when developing their individual Local Plans.

1.8 The commitment to producing a statutory GMSF should not be seen as indicating that any existing development plans within Greater Manchester are considered out-of-date. The GMSF will in time become a material planning consideration, however at this stage in the process no weight should be attached to the intention to produce the GMSF or the initial evidence that is the subject of this consultation.

1.9 This consultation document sets out our work to date in developing an evidence base to identify employment floorspace and housing requirements for Greater Manchester. Although this paper identifies objectively assessed housing and employment floorspace needs for Greater Manchester for the period 2012-2033, there is no attempt to identify the objectively assessed needs or requirements for individual districts as this will be a key output of future stages of work on the GMSF. Similarly, further work is required on the individual components of need and supply for example,

- Supply indicators
- Overall land availability, taking into account potential environmental, infrastructure and other constraints
- Availability of sites suitable for meeting the requirements of specific market segments
- Viability of sites
- Demand for affordable housing

1.10 The consultation document is structured in the following way:

- Section 2: Scope and process of the GMSF

- Section 3: Greater Manchester strategic context
- Section 4: Area of assessment
- Section 5: Projections and forecasts
- Section 6: Objectively assessed need and demand for employment floorspace
- Section 7: Objectively assessed housing need

1.11 Throughout the consultation document we refer to past data typically looking at the period 2004-2012. This time period matches that for which detailed development completion data is available from the districts. Forecasts and projections normally relate to the period 2012-2033 which is that proposed as the GMSF time period although this may be extended.

1.12 In accordance with best practice we are now undertaking targeted engagement and consultation with a number of specific consultation bodies and Duty to Cooperate bodies as well as national and regional organisations, businesses and other key partners who can help us to gather evidence, identify strategic issues and test our approach prior to the gathering of further evidence relevant to the scope of the plan.

1.13 By placing our work to date in the public domain, we are also providing an opportunity for any other organisations or individuals to register their interest in the GMSF, so that they receive further information and updates as they become available.

1.14 For future stages, consultation will be broadened in line with national planning regulations to invite views from a more extensive list of individuals (as well as organisations) drawn from the consultation databases of each district.

1.15 In this context, we are now seeking views on the technical evidence base to identify the levels of growth we should be planning for. In particular, we are seeking to test:

- whether Greater Manchester is an appropriate geographical area for assessing employment floorspace and housing needs;
- whether our analysis of Greater Manchester's competitive strengths is sound and comprehensive;
- the appropriateness of the assumptions we use to underpin our approach;
- the methodology we have used to carry out our assessment of employment and housing land requirements to 2033;
- whether the evidence base should be developed further to support our objectives, and if so what form this should take;
- the conclusions that we have reached in light of the evidence;
- whether there are any other issues that will be relevant to the future development of the GMSF.

Responding to the current consultation exercise

1.16 Representations are encouraged via the AGMA/GMCA website, www.agma.gov.uk, which hosts an online version of all materials including a consultation questionnaire. Organisations are asked to make a single coordinated response via the website by **17:00 on the 7 November 2014**.

Alternatively, representations can be emailed or posted direct to:

Greater Manchester Integrated Support Team
PO Box 532
Manchester Town Hall
Albert Square
Manchester
M60 2LA
gmsf@agma.gov.uk

Support is available for anyone requiring Braille versions of this information or translation into other languages.

For general enquiries relating to this consultation please contact the Greater Manchester Planning and Housing Team on: 0161 237 4162

2. Greater Manchester Spatial Framework Development Plan Document - scope and process

2.1 We are currently considering the detailed scope of the Greater Manchester Spatial Framework DPD (GMSF) and the time horizon it should cover. As a minimum we consider that it needs to address the following:

- Greater Manchester's housing and employment land requirements
- District housing requirements
- District employment floorspace requirements (split by offices and industry/warehousing)
- Strategic locations/opportunities for development
- Key infrastructure proposals required to deliver the scale of development envisaged

2.2 However, whilst there will clearly be a very important role for district Local Plans, the scope of the GMSF could be broader to cover issues such as type and affordability of housing, retail hierarchy, and strategic green infrastructure. Therefore it is essential that we are clear on the appropriate balance between strategic and local issues that affect Greater Manchester. Additionally it will be important to understand the cross-boundary issues.

Question 1: Do you agree with the proposed scope of the document outlined above? Do you think that anything else should be included within its scope and, if so, what?

2.3 The National Planning Policy Framework (NPPF) states that "Local Plans should … be drawn up over an appropriate time scale, preferably a 15-year time horizon". The current proposed time period covered by the GMSF is 2012-2033 and so based on the timetable it would have a 15-year time horizon on adoption. However, Local Plans that are subsequently based on the GMSF would need to have an end date beyond 2033 in order to have a 15-year time horizon. Any Local Plan that is based on the GMSF is unlikely to be adopted before 2020, and there is, therefore, a strong argument for extending the end date of the Plan to at least 2035. We will revisit the time horizon of the plan when we review the evidence in the light of the consultation responses to this document and the latest DCLG household projections, so your views on this would be welcomed.

Question 2 : What do you think should be the end date of the GMSF?

2.4 In preparing Local Plans, authorities are required by the NPPF to objectively assess the development needs for their area and plan for these needs and any associated infrastructure requirements. Without an overarching strategic context, e.g. regional spatial strategy, this is the first time that districts have been wholly responsible for setting their own housing and jobs targets. However, in setting these targets, districts must do so in the context of a co-operative approach with regard to strategic matters as set out in national

policy guidance and the Localism Act 2011. Undertaking this work at a Greater Manchester level will require co-operation both within Greater Manchester but also with our neighbours outside of the conurbation.

Process Stages

Stage 1: Initial evidence gathering and engagement - Housing and Economic Development Assessment - September 2014

This is the stage we are currently at. We are seeking views on the approach and the underlying assumptions which have driven the methodology behind this evidence paper.

The purpose of this stage is to secure strategic engagement with specific consultation bodies, as well as national and regional organisations, businesses and key partners who can help us to gather evidence, identify strategic issues. It will help us to build up a meaningful understanding of the strategic issues we need to cover and a fuller database of consultees to inform consultation on future stages.

Stage 2: Strengthening the evidence base and developing options – 2014 – 2015

Identifying the levels of growth we need to accommodate is a key element in developing the GMSF. Following this initial consultation stage, we will explore a broader range of evidence in relation to issues such as land supply, environmental constraints, market demand and infrastructure to enable us to develop and assess options to accommodate this growth. We will continue to test our evidence and approach through our Sustainability Appraisal and consultation processes to inform the development of a first complete draft Plan.

Stage 3: Consultation on the Draft GMSF – 2016
Widespread consultation on our draft GMSF setting out our proposed spatial strategy for Greater Manchester. We will engage with our duty to co-operate partners, ensure compliance with the districts' Statements of Community Involvement (SCIs). The document will be supported by extensive evidence, including a full Sustainability Appraisal which will have appraised options.

Stage 4: Publication of the GMSF – 2017
Having taken into account comments and views expressed throughout the process, and in particular in relation to the draft GMSF, we will publish the GMSF that the ten local authorities would like to adopt for a minimum of 6 weeks

Stage 5: Submission and independent examination – 2017
We will submit the GMSF for examination along with the Sustainability Appraisal, Habitats Regulation Assessment, other relevant assessments, evidence base and a statement of representations and main issues raised at publication stage.

Stage 6: Adoption – 2018
The GMSF will be formally adopted by each of the ten Greater Manchester local authorities.

Question 3: Do you agree with the proposed process? If not, how do you think it should be amended?

Consultation and engagement

2.5 In England and outside of London, the development of the GMSF is the first time that a large metropolitan area has set out a plan to develop a strategic spatial framework of this type and scope: focusing on delivering land for homes and jobs alongside critical infrastructure. As such, we will need to undertake a large amount of preliminary work to ensure that we have gathered the evidence we need as well as tested our approach to analysing this.

2.6 Early and meaningful consultation and engagement with local communities, businesses and other interested parties will be essential to the successful development of the GMSF. The early stages of initial evidence gathering and targeted engagement and consultation (Stage 1 – the current stage) will be an opportunity for more focused, strategic engagement with a number of specific consultation bodies as well as national or regional organisations, businesses and key partners who can help us to gather evidence, identify strategic issues and test our approach prior to the development of a draft GMSF. This will provide a strong foundation for the development of the draft GMSF and wider consultation on this during 2016, helping us to build up a meaningful understanding of the strategic issues we need to cover and a fuller database of consultees to inform future consultation on the draft GMSF.

2.7 Following this initial consultation, we will identify and engage with all those that may be interested in the development or content of the GMSF. This will include engagement within individual local authority areas in Greater Manchester as well as with those that neighbour the conurbation, so that we can co-operate to address strategic cross boundary issues.

2.8 In line with planning regulations[3], we will notify and invite a range of individuals, groups and other stakeholders to make representations on the further evidence base, development of options and draft GMSF (Stage 2 onwards), including local voluntary groups, bodies which represent Greater Manchester's different communities and businesses as well as key strategic partners in other parts of the public sector.

Question 4: Do you agree with the proposed approach to consultation? If not, what do you think we should be doing differently and how?

[3] Regulation 18 of the Town and Country Planning (Local Planning) (England) Regulations 2012

2.9 We will be publishing a detailed project plan outlining the scope of the Plan, the consultation strategy, the timescale and the resources required for producing it following the completion of this initial consultation. We are working with the districts to incorporate the work into their Local Development Schemes (LDSs) and Statements of Community Involvement (SCIs).

3. The Strategic Context

3.1 The Manchester Independent Economic Review[4] was a comprehensive and robust economic analysis, and found that, outside London, Manchester is the city region which, given its scale and potential for improving productivity, is best placed to take advantage of the benefits of agglomeration and increase its growth. The MIER identified a number of key strategic issues that we must address to maximise the growth of the conurbation, including improving transport connectivity, addressing worklessness, up-skilling our residents and improving early years provision. Our response to that analysis was the Greater Manchester Strategy, first published in 2009[5].

3.2 The global economic downturn has, since 2008, created unprecedented and extremely difficult economic conditions, making delivery of our ambitious growth objectives more challenging. Reductions in public spending, which will continue for the foreseeable future, mean that we must change the way that public services are delivered. This is why in 2013 we produced a fresh analysis of the priorities identified in 2009 and repositioned the Greater Manchester Strategy around the twin themes of Growth and Reform. The resulting Stronger Together[6] sets out a series of strategic priorities to secure the sustainable economic growth of the conurbation and to enable the residents of Greater Manchester to take advantage of the opportunities that such growth presents to access and progress through work.

3.3 Those priorities are;

- reshaping our economy to meet new, global demands;
- delivering an investment strategy based on market needs;
- revitalising our town centres;
- creating the places and spaces that will nurture success;
- stimulating and reshaping our housing market;
- crafting a plan for growth and infrastructure;
- improving connectivity locally, nationally and internationally;
- placing Greater Manchester at the leading edge of science and technology;
- building our global brand;
- supporting business growth with a strong, integrated offer;
- improving our international competitiveness;
- seizing the growth potential of a low carbon economy and increased resource efficiency;
- delivering an employer-led skills programme;
- preventing and reducing youth unemployment;
- delivering an integrated approach to employment and skills; and
- building independence and raising expectations though public service reform.

[4] http://www.manchester-review.org.uk/
[5] http://www.agma.gov.uk/
[6] http://www.agma.gov.uk/gmca/gms_2013/index.html

3.4 We have further refined our approach in the Greater Manchester Growth & Reform Plan.[7] Developed as part of the Government's Growth Deal process, the Plan seeks freedoms, flexibilities and influence over resources from Government and a share of the Local Growth Fund to support delivery of a range of priority interventions relating to transport and connectivity requirements of Greater Manchester; investment in skills provision to meet the needs of employers; and investment to fill gaps in the region's Life Science offer.

3.5 The unifying theme of the priorities set out in the Growth and Reform Plan is to ensure that Greater Manchester becomes a net contributor to the UK economy by 2020. To achieve this we must eliminate the present gap between public spending and tax generated, which we calculate to be £4.7bn a year.

Our Ambition

3.6 Our approach seeks to create a platform for fiscal self-reliance in Greater Manchester, based on a new relationship with Government that enables local authorities to discharge their place-shaping role to create high quality places that attract and retain more productive people and businesses and reforming the way that public services are delivered to improve outcomes for our people. Creating jobs and growth without reforming services or transforming places will not reduce the costs of dependency. Economic inactivity amongst the working age population is one key cause of Greater Manchester's productivity gap. In order to maximise the benefits from economic investment it is critical that there is investment to connect Greater Manchester residents to that growth and to address both the productivity drag and to reduce the costs of public services.

3.7 Our ambition for Greater Manchester is clear:

"Manchester is one of the most successful cities in the UK. We want to become one of the most successful cities in the world." [8]

3.8 Our track record clearly demonstrates that we can deliver jobs and growth. We are addressing market failure and investing to ensure that our offer is informed and driven by investor demand, offering value-based, flexible workspaces that meet the changing demands of investors in locations where the market wants to go. We are putting in place the technology offer to support innovation in business products and service delivery across the public and private sectors, supporting the development of creative clusters and centres of research and development. We are supporting our key sectors, those in which we have a competitive advantage such as Financial and Professional Services, Creative and Digital, to leverage our assets to grow those sectors further. The discovery of Graphene at the University of Manchester is a global growth opportunity.

[7] http://www.agma.gov.uk/gmca/gm-growth-reform-plan/index.html
[8] GMS p21

3.9 Our approach to delivering growth is underpinned by our innovative approach to investment, focused on generating returns that can be recycled and reinvested, maximising the value of every pound spent.

3.10 But we know that creating jobs is not sufficient. Across Greater Manchester, we are currently spending far too much on the costs of failure, much caused by issues of complex dependency. Despite the level of budget cuts to public services, the total level of spending across Greater Manchester has not reduced, with decreases in spending by local authorities, the police and others offset by increases in the costs of welfare benefits and, to a lesser extent, acute care.

3.11 We need to reform our public services to help all residents be independent and self-reliant, connecting our communities to economic growth. This means reducing levels of worklessness and improving residents' skills, and tackling the complex barriers to independence that many people face.

The Spatial Implications of Our Ambitions

3.12 A spatial understanding of the implications of this approach will be critical to our success. The Greater Manchester Spatial Framework (GMSF) will be the spatial expression of the Greater Manchester Strategy: identifying where our particular strengths and opportunities lie, highlighting the barriers holding some of our places back and the approach required to overcome those barriers, and ensuring that new development is supported by good quality, low carbon infrastructure.

3.13 The GMSF will be one key element of our approach, and will sit alongside our City Deal[9], our Growth Deal[10], our Greater Manchester Investment Framework[11] and our Residential Growth Strategy[12] to help us to meet the challenge of delivering growth at previously unseen levels, through the creation and implementation of innovative and ground breaking development models.

The Opportunity

3.14 The vision for Greater Manchester as presented in the Greater Manchester Strategy, Stronger Together (2013), is:

"By 2020, the Manchester city region will have pioneered a new model for sustainable economic growth based around a more connected, talented and greener city region, where all our residents are able to contribute to and benefit from sustained prosperity and a good quality of life.

We will continue to be one of Europe's premier city regions, known for

[9] http://www.agma.gov.uk/gmca/city-deal-announcement/index.html
[10] http://www.agma.gov.uk/gmca/growth-deal-announcement-for-greater-manchester/index.html
[11] http://www.agma.gov.uk/gmca/gm-investment-strategy/index.html
[12] http://www.agma.gov.uk/cms_media/files/gmca_agenda_and_reports_29_august_2014_web.pdf p 83-94

creativity, culture, sport and the commercial exploitation of a world-class knowledge base.

We will compete globally for talent, investment, trade and ideas.

We will be a city region where all people are valued and able to fully participate in and benefit from the city region's success, where every resident, neighbourhood and every borough can contribute to and benefit from our shared sustainable future.

We will be known for a good quality of life, low carbon economy and a commitment to sustainable development alongside an outstanding natural environment.

We will continue to grow into a fairer, healthier, safer and more inclusive place to live, known for excellent, efficient, value for money services and transport choices.

We will deliver focused leadership of Greater Manchester based around collaboration, partnerships and a true understanding that through collective and individual leadership we are strong".

3.15 The Greater Manchester Spatial Framework will cover a longer timescale, extending to at least 2033, but the above vision and objectives will remain relevant throughout that period. The provision of an appropriate quantity and quality of new housing and commercial floorspace will be important to delivering the vision and objectives, but so too will the protection and enhancement of Greater Manchester's environmental assets.

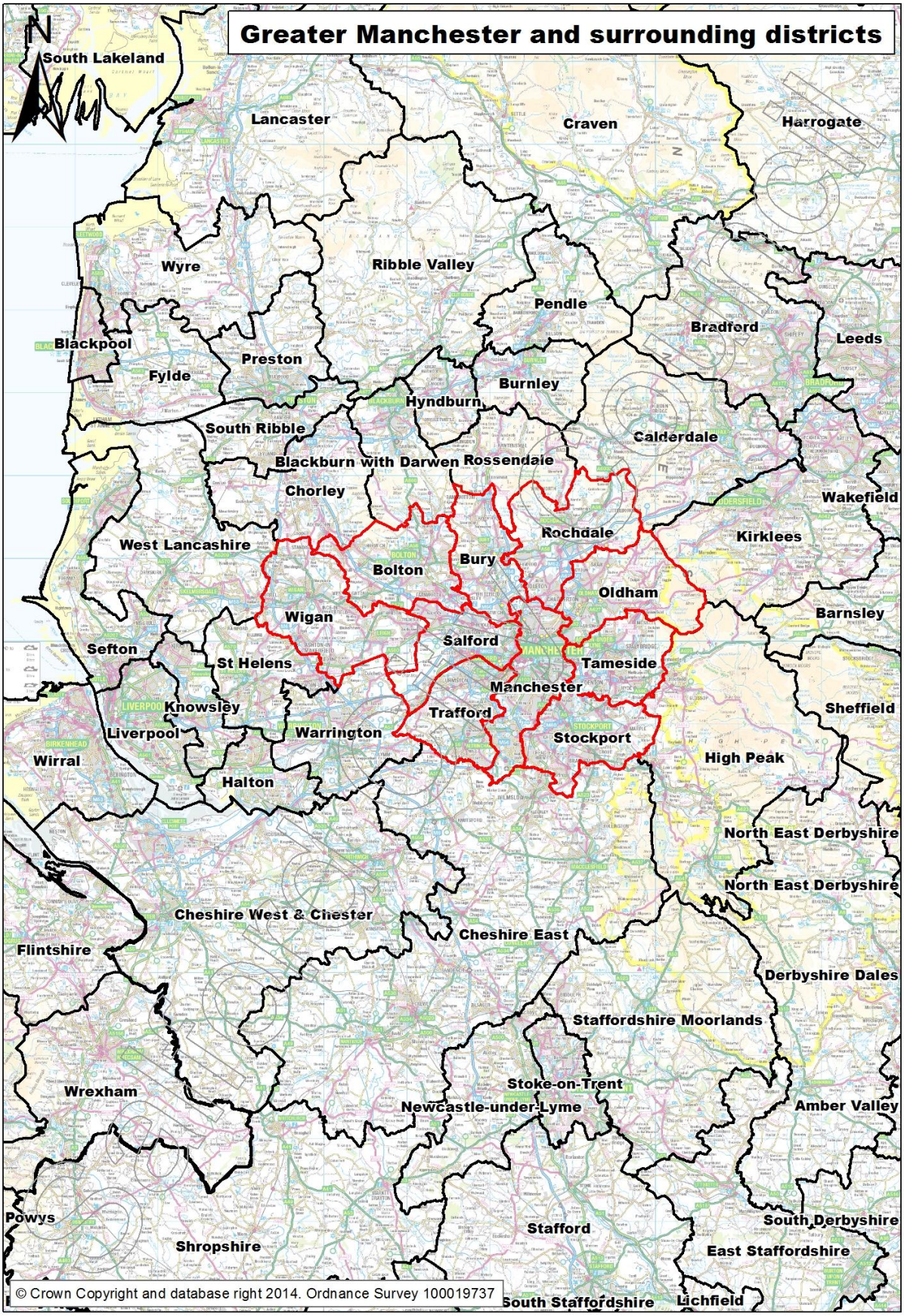
Question 5: Do you agree that the vision from the Greater Manchester Strategy should form the basis of the Greater Manchester Spatial Framework? Please identify anything else that you think should be included in the vision for the GMSF.

4 Area of assessment

4.1 The first task is to identify the appropriate geographical area for assessing the housing and employment floorspace needs of Greater Manchester. Two key issues are whether Greater Manchester is sufficiently coherent to be assessed as a single area, and if any areas outside Greater Manchester should be included within such an assessment because of the strength of their links to Greater Manchester.

4.2 Consideration of any sub-market areas within Greater Manchester will form part of the next stage of work on the Greater Manchester Spatial Framework.

4.3 This section repeatedly refers to districts surrounding Greater Manchester, and these are shown in the map below.


Greater Manchester and surrounding districts
N
South Lakeland
Lancaster
Craven
Harrogate
Wyre
Ribble Valley
Pendle
Bradford
Leeds
Blackpool
Preston
Fylde
Burnley
Hyndburn
South Ribble
Calderdale
Blackburn with Darwen
Rossendale
Chorley
Wakefield
Rochdale
Kirklees
West Lancashire
Bolton
Bury
Oldham
Barnsley
Wigan
Salford
Sefton
St Helens
Tameside
Manchester
Knowsley
Trafford
Sheffield
Liverpool
Warrington
Stockport
Wirral
High Peak
Halton
North East Derbyshire
North East Derbyshire
Cheshire West & Chester
Cheshire East
Flintshire
Derbyshire Dales
Staffordshire Moorlands
Stoke-on-Trent
Wrexham
Newcastle-under-Lyme
Amber Valley
Powys
Stafford
South Derbyshire
Shropshire
East Staffordshire
South Staffordshire
Lichfield
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National guidance

4.4 The national Planning Policy Guidance (PPG) provides advice on the scope of housing and economic development needs assessments. It states that:

> "Needs should be assessed in relation to the relevant functional area, ie housing market area, functional economic area in relation to economic uses, or area of trade draw in relation to main town centre uses. Establishing the assessment area may identify smaller sub-markets with specific features, and it may be appropriate to investigate these specifically in order to create a detailed picture of local need. It is important also to recognise that there are 'market segments' ie not all housing types or economic development have the same appeal to different occupants." (paragraph 2a-008-20140306)

4.5 As noted above, at this stage we are focusing on total needs, and market segments and sub-markets will be considered subsequently.

4.6 In relation to the identification of assessment areas, the PPG explains that:

> "No single source of information on needs will be comprehensive in identifying the appropriate assessment area; careful consideration should be given to the appropriateness of each source of information and how they relate to one another. For example, for housing, where there are issues of affordability or low demand, house price or rental level analyses will be particularly important in identifying the assessment area. Where there are relatively high or volatile rates of household movement, migration data will be particularly important. Plan makers will need to consider the usefulness of each source of information and approach for their purposes. Local planning authorities can use a combined approach where necessary." (paragraph 2a-009-20140306)

4.7 In June 2014, the Planning Advisory Service (PAS) published guidance on objectively assessed housing need, which includes an extensive consideration of how to identify housing market areas. This seeks to implement the approach outlined in the National Planning Policy Framework and the PPG.

Key principles

4.8 The Planning Advisory Service (PAS) technical advice note on objectively assessed housing need states that "it is useful to combine the HMA and functional economic areas into a single boundary. This makes both analysis and policy-making manageable: the alternative of working with two larger-than-local areas, one for housing and one for economic land uses, adds layers of complexity. It also makes it possible to plan for alignment of jobs and workers – something which is very difficult to do at the level of individual authorities, precisely because labour markets are larger than local"[13].

[13] Planning Advisory Service (June 2014), *Objectively Assessed Need and Housing Targets: Technical advice note*, paragraph 4.16

4.9 An important conclusion of the PAS advice note is that:

> "It is best if HMA boundaries do not cut across local authority areas. Dealing with areas smaller than local authorities causes major difficulties in analysing evidence and drafting policy. There may also be 'cliff edge' effects at the HMA boundary, for example development allowed on one side of a road but not the other. These complications are not offset by the benefit of greater accuracy."[14]

4.10 This is somewhat at odds with the PPG, which explains that: "The extent of the housing market areas identified will vary, and many will in practice cut across various local planning authority administrative boundaries" (paragraph 2a-010-20140306). However, avoiding subdividing local authority areas would seem advisable. The problem of data collection for areas smaller than local authorities was experienced in the Greater Manchester Strategic Housing Market Assessment[15], where whole district figures were assigned to housing market areas even where they only included part of that district, due to the lack of data at a smaller geographical level. This led to significant double-counting for some key variables, and a lack of clarity over the characteristics of those housing market areas that were considered to cut across district boundaries.

4.11 The PAS advice note also considers that: "Authorities should make a pragmatic choice, drawing areas that seem both reasonable and manageable"[16]. Identifying boundaries of functional economic areas and housing market areas is not a precise science, with it being possible to interpret the same evidence in different ways, and it is therefore appropriate to consider practicalities when analysing the relevant data.

4.12 In light of this, and in order to ensure that this assessment is as robust, coherent and understandable as possible, it is considered that four guiding principles can be established for identifying the appropriate unit of analysis for assessing Greater Manchester's housing and employment floorspace needs, namely that the area of assessment should:

1) Be strongly based on evidence;
2) Be the same for both housing and employment floorspace;
3) Not cut across local authority boundaries; and
4) Be manageable, having regard to the structures required for successful cross-boundary planning.

4.13 These principles inform the analysis that follows, and the conclusions that are drawn from it.

[14] Planning Advisory Service (June 2014), *Objectively Assessed Need and Housing Targets: Technical advice note*, paragraph 4.11
[15] Deloitte MCS Ltd and GVA Grimley (December 2008), *Greater Manchester Strategic Housing Market Assessment: Final Report*
[16] Ibid, paragraph 4.17

Question 6: Do you agree with the four principles for identifying the area of assessment? If not, what approach would you suggest?

Housing market areas

4.14 The national Planning Practice Guidance (PPG) explains that: "A housing market area is a geographical area defined by household demand and preferences for all types of housing, reflecting the key functional linkages between places where people live and work. It might be the case that housing market areas overlap" (paragraph 2a-010-20140306).

4.15 The PPG suggests that housing market areas can be broadly defined using three different sources of information:

- House prices and rates of change in house prices
- Household migration and search patterns
- Contextual data, for example travel to work area boundaries, retail and school catchment areas (paragraph 2a-011-20140306)

4.16 However, the PAS guidance notes that although the PPG identifies a long list of possible indicators: "In practice, the main indicators used are migration and commuting"[17].

4.17 This chapter focuses primarily on migration and commuting data, as this information is considered to be of most relevance when looking at strategic housing market areas. Although the Planning Practice Guidance also suggests analysing house prices, search patterns and catchment areas, these are more appropriate for consideration when looking at smaller market areas, and so will be more relevant at the next stage of work on the Greater Manchester Spatial Framework.

Previous identification of housing market areas

4.18 There are currently two strategic housing market assessments covering the whole of Greater Manchester, both published in 2008, namely the:

- North West Strategic Housing Market Assessment, commissioned by 4NW and prepared by a consortium of Nevin Leather Associates, Manchester Geomatics, the University of Sheffield and Inner City Solutions
- Greater Manchester Strategic Housing Market Assessment, commissioned by the Association of Greater Manchester Authorities and prepared by Deloitte MCS Ltd and GVA Grimley

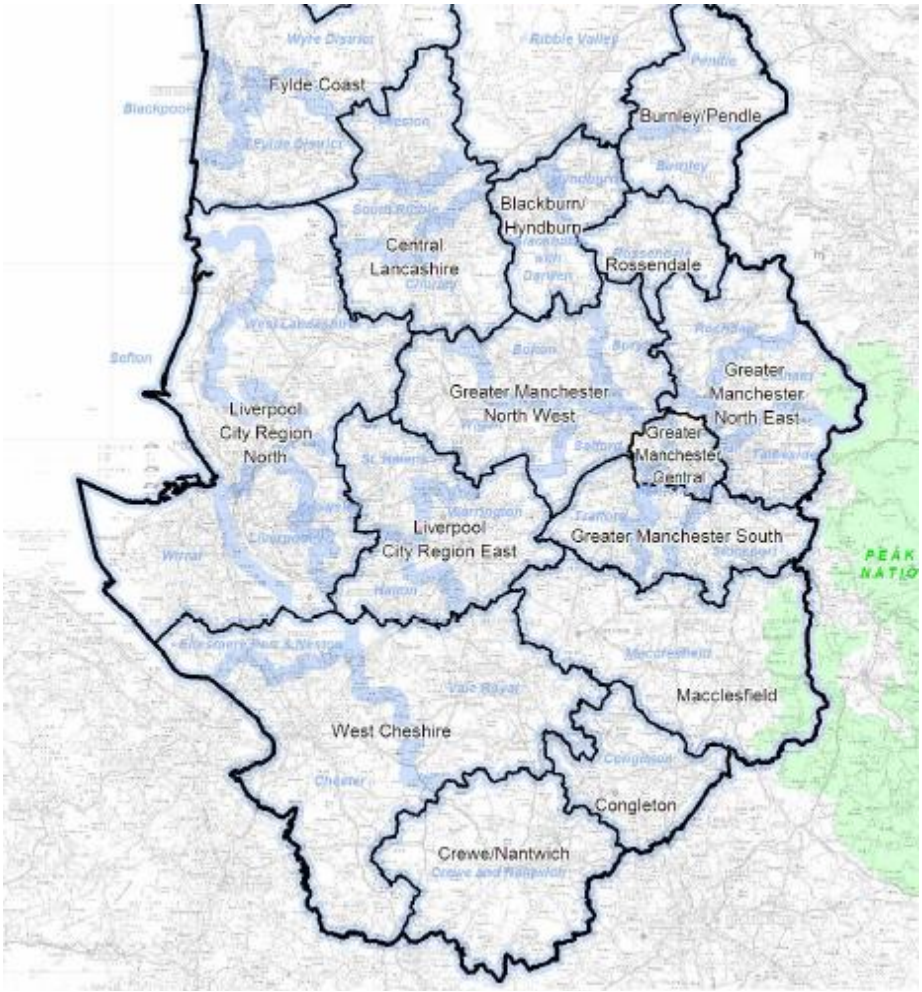
4.19 Both of these assessments split Greater Manchester into four housing market areas, using the same boundaries:

- Greater Manchester Central, which consists of Central and East Manchester and Central Salford

[17] Ibid, paragraph 4.4

- Greater Manchester North West, which consists of Bury, Bolton, Salford West and Wigan
- Greater Manchester North East, which consists of North Manchester, Oldham, Rochdale and Tameside
- Greater Manchester South, which consists of South Manchester, Stockport and Trafford

4.20 The map below is an extract from Map 2.1 of the North West Strategic Housing Market Assessment[18], and shows the four aforementioned housing market areas together with other housing market areas within the region which include districts that adjoin Greater Manchester.



4.21 The derivation of these areas was quite complicated. A background report to the North West SHMA explains that, in 2007, Greater Manchester "completed a research study of housing markets in the North West known as Making Housing Count. This provided a consistent evidence base and detailed analysis of housing market trends, including a typology of neighbourhoods across Greater Manchester and analysis of market drivers.
Making Housing Count recognised that the complexity of the Manchester conurbation posed a considerable challenge to the identification of housing

[18] Nevin Leather Associates, et al (2008), *North West Strategic Housing Market Assessment*, p.28

market areas. The Manchester city region [including High Peak, Macclesfield, Congleton and Vale Royal, as well as Greater Manchester] is dominated in terms of economic activity by the conurbation centre (formed by parts of Manchester, Salford and Trafford), but within the city region a number of other economic centres generate their own patterns of travel to work and migration. The towns and cities around the core, especially to the north, have a complex pattern of linkages. … While recognising that alternative approaches and categorisations were possible, AGMA decided that it was appropriate to divide the city region into four sub-areas for housing market assessment purposes. These areas were initially developed (in line with official guidance) on the basis of migration, travel to work and house price data and a detailed typology of neighbourhoods, without taking account of local authority boundaries. However, with the exception of the conurbation centre where this was not practicable, they were subsequently aligned with administrative boundaries to assist with data collection and analysis."[19]

4.22 These same boundaries were then used for the Greater Manchester SHMA, again referring back to the Making Housing Count research. Although that research suggested that the inclusion of areas outside Greater Manchester could be appropriate, it was ultimately decided that no areas outside Greater Manchester would be included within the Greater Manchester housing market areas.

Housing market areas in England

4.23 In November 2010, the Department for Communities and Local Government published detailed research on the geography of housing market areas in England that had been undertaken by Heriot-Watt University and the Universities of Manchester, Newcastle and Sheffield on behalf of the former National Housing and Planning Advice Unit (referred to hereafter as the NHPAU research). The stated purpose of the research was to "identify the optimal areas within which planning for housing should be carried out"[20].

4.24 The research used three variables to assess potential housing market areas at different geographic levels: commuting, migration and house prices. It concluded that "the system of local housing markets can be seen as series of tiers"[21]. It suggested that there are three potential tiers "to the structure of housing market areas.

- framework housing market area defined by long distance commuting flows
- local housing market areas defined by migration patterns

[19] Nevin Leather Associates, Inner City Solutions and University of Sheffield (August 2008), *The definition of housing market areas in the North West region: Final report*, p.29-30
[20] Department for Communities and Local Government (November 2010), *Geography of housing market areas: Executive summary*, p.4
[21] Department for Communities and Local Government (November 2010), *Geography of housing market areas: Final report*, p.7

- submarkets defined in terms of neighbourhood and/or house type price premiums"[22].

4.25 In relation to this suggested tiered approach to housing market areas, the research concluded that it:

"is not only theoretically sound but also offers important policy advantages. A tiered approach to policy sees the framework housing market area as providing the long term horizon for strategic planning encompassing projected household changes, transport connectivities, housing land availability, housing market change, urban capacity study and addressing major initiatives like growth areas. The local housing market area can be seen as the short term perspective in which planning also has to operate. Building new houses within a framework housing market area may not necessarily address supply shortage in a particular local housing market area directly in the short term but it is possible that new building in the long term can lead to a redrawing of migration patterns. To achieve this will require a sensitive approach to the location of such new housing taking into account transport networks for example and demands a focus on local housing market areas embedded within their framework housing market area."[23]

4.26 Various combinations of different approaches to commuting and migration self-containment were tested by the research. It ultimately identified "an upper tier of framework housing market areas derived from 77.5 per cent commuting closure analysis and a lower tier of local housing market areas based on 50 per cent migration closure … as the recommended geography after being considered on theoretical, technocratic and spatial planning considerations"[24]. This resulted in the definition of "a set of 75 framework housing market areas, with a tier of 280 local housing market areas nested wholly within them"[25]. The research focused on the upper two tiers, and did not attempt to identify the submarkets in the third tier.

4.27 The research also identified a single tier definition of housing market areas as an alternative, in case a simpler approach was considered to be more appropriate than the tiered approach. This used a similar methodology to that for the upper tier of the two tier approach described above, but instead applying a 75% threshold level for commuting closure rather 77.5%. This single tier approach resulted in similarly sized housing market areas to the upper tier of the two tier approach, but with slightly different boundaries.

4.28 For both the two tier and single tier approaches, the research identified a gold standard set of housing market areas based on ward boundaries, and silver standard housing market areas providing a best fit to local authority boundaries.

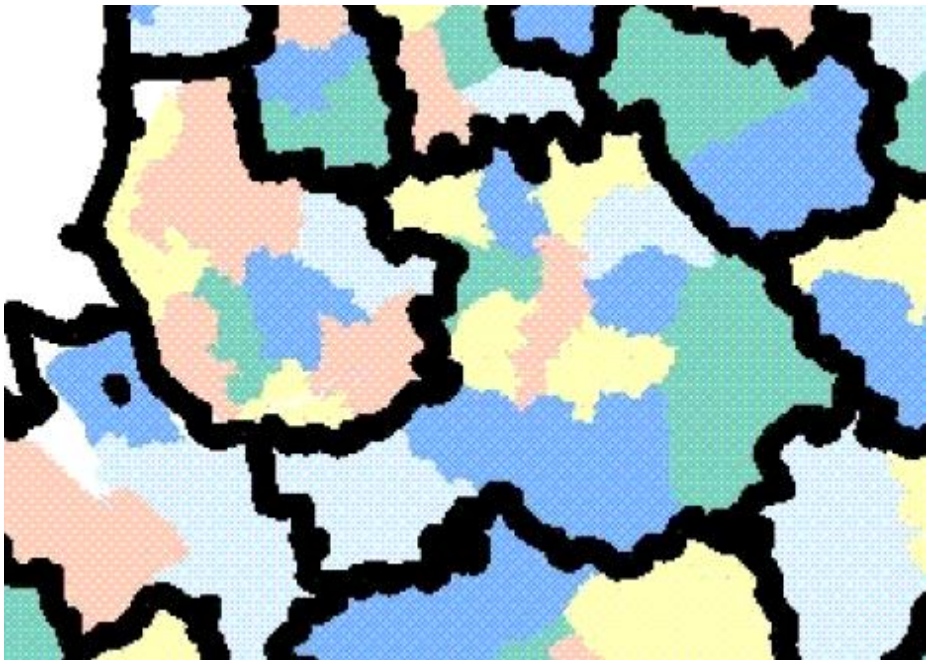
[22] Ibid, p.10
[23] Ibid, p.34
[24] Ibid, p.34-35
[25] Department for Communities and Local Government (November 2010), *Geography of housing market areas: Executive summary*, p.7

4.29 The gold standard two-tier geography recommended in the research, based on wards, covering Greater Manchester is shown below (upper tier shown by the purple lines, and lower tier by the black lines)[26].

4.30 The gold standard single-tier geography, based on wards, is shown below[27]:

[26] http://www.ncl.ac.uk/curds/assets/documents/5.pdf
[27] http://www.ncl.ac.uk/curds/assets/documents/6.pdf

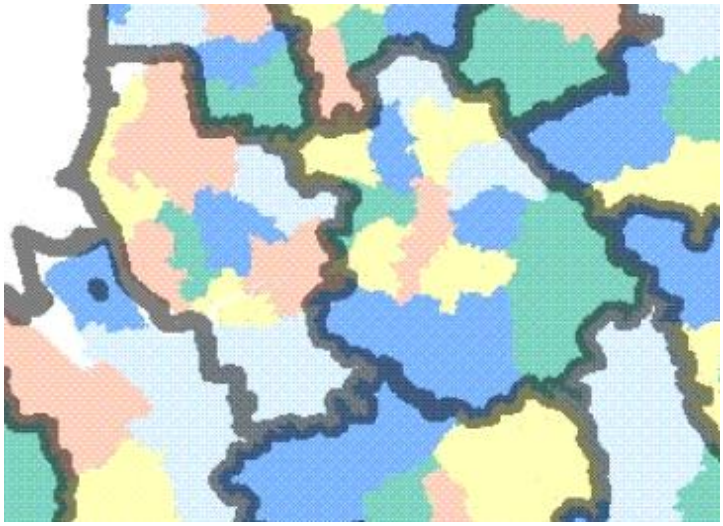
4.31 As noted above, the PAS guidance recommends using local authority boundaries rather than ward boundaries, because of the implications both for data collection and policy development. It specifically refers to the silver standard single-tier geography from the NHPAU research as the most useful for housing need studies[28]. An extract of this covering Greater Manchester is shown below[29].



4.32 The nine Greater Manchester districts of Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside and Trafford can be seen to be in the same single-tier housing market area on this basis, together with High Peak and the former districts of Macclesfield (now part of Cheshire East) and Vale Royal (now part of Cheshire West and Chester). Wigan is identified as part of a separate housing market area, which also includes Halton, Knowsley, Liverpool, St Helens, Sefton, Warrington and West Lancashire.

4.33 It is worth noting that this silver standard single tier geography is slightly different to the equivalent silver standard upper tier geography based around local authority boundaries when considering the two tier approach. Under the silver standard upper tier definition, Vale Royal is in the same housing market area as Wigan and the Merseyside authorities, and Rossendale is included within the same area as the other nine Greater Manchester local authorities (together with High Peak and Macclesfield as in the silver standard single tier geography), as shown below[30].

[28] Planning Advisory Service (June 2014), *Objectively Assessed Need and Housing Targets: Technical advice note*, paragraph 4.8
[29] http://www.ncl.ac.uk/curds/assets/documents/8.pdf
[30] http://www.ncl.ac.uk/curds/assets/documents/7.pdf



Housing market areas covering adjoining districts

4.34 Given that the above research conducted on behalf of the former National Housing and Planning Advice Unit concludes that Wigan may be in a separate housing market area to the other nine Greater Manchester local authorities, and that High Peak, Rossendale and parts of Cheshire East and Cheshire West and Chester may be within the same housing market area as Greater Manchester (excluding Wigan), it is useful to consider how neighbouring local authorities are addressing the issue of housing market area definition (together with Cheshire West and Chester since the former district of Vale Royal was identified as being in the same housing market area as most of Greater Manchester under some definitions in the NHPAU research). A review of their latest strategic housing market assessments indicates that such local authorities have generally reached the conclusion that they lie in separate housing market areas to Greater Manchester, whilst recognising the important linkages to locations within Greater Manchester.

High Peak

4.35 The High Peak SHMA explains that its "assessment of the extent of the HMA for High Peak demonstrates that the situation is complex and does not necessarily allow for a straightforward demarcation of the [HMA] boundary, as there are considerable overlaps with the HMAs within the Manchester/Sheffield Strategic HMAs". It notes that "the situation in High Peak is clearly highly complex, with the 2010 CLG analysis [of housing market areas] suggesting that the Borough is split between three separate Local HMAs (Buxton, Hyde and Sheffield North & South), and at a more strategic scale, the wider HMAs of Manchester and Sheffield. However, none of the three Local HMAs appear to have a selfcontainment level any higher than that of High Peak Borough in isolation". Consequently, the "complex nature of the relationships of wards within High Peak and neighbouring authorities means

that there are clear relationships with bounding authorities that need to be taken into account", and this has implications for the duty to cooperate[31].

4.36 The report states that: "It is the view of NLP that both Tameside and Stockport have significant housing market relationships with High Peak and therefore cannot be considered as entirely independent HMAs, but as Local Authorities with overlapping housing markets. The same could be said (albeit to a lesser extent) with Sheffield and Derbyshire Dales to the south and east, and Cheshire East to the west."[32] However, the SHMA is written for High Peak alone, and the emphasis is on recognising the links and overlapping nature of housing market areas, rather than defining parts of Greater Manchester as lying within the High Peak housing market area, or vice versa.

Cheshire East

4.37 The Cheshire East SHMA concludes that "Cheshire East comprises several housing market areas based broadly on the former District boundaries" (i.e. former Crewe and Nantwich, former Congleton, and former Macclesfield). It describes these three functional market areas derived from the data as follows[33]:

- Former Crewe and Nantwich:
  - Relatively self-contained area, with migration from elsewhere in Cheshire East and North Staffordshire;
  - Most self-contained area in terms of workplace and relatively limited interaction with areas outside Cheshire East.

- Former Congleton:
  - Influenced by migration from elsewhere in Cheshire East, Greater Manchester and North Staffordshire;
  - Travel to work area includes other areas of Cheshire East, elsewhere in Cheshire, Greater Manchester and North Staffordshire.

- Former Macclesfield:
  - Relatively strong influence of migration from Greater Manchester;
  - This is reinforced by strong commuter flows to Greater Manchester.

4.38 Significant links with Greater Manchester are identified, particularly for the functional area based around the former district of Macclesfield. However, it is concluded that areas outside Cheshire East, such as parts of Greater Manchester, do not need to be included within the defined functional areas.

Cheshire West and Chester

4.39 No specific consideration of housing market area boundaries is set out in the Cheshire West and Chester strategic housing market assessment. In terms of

[31] Nathaniel Lichfield & Partners (April 2014), *Strategic Housing Market Assessment and Housing Needs Study: Final Report*, p.23
[32] Ibid, p.21-22
[33] Arc4 (September 2013), *Cheshire East Strategic Housing Market Assessment 2013 Update*, p.20

migration, it explains that: "Over the period July 2008 to June 2011 (3 years) a total of 35,640 people have moved into Cheshire West and Chester, particularly from Cheshire East, Flintshire, Wirral, Liverpool and Manchester. 35,620 have moved out (most noticeably to the same localities of Cheshire East, Flintshire, Wirral, Liverpool and Manchester"[34]. It states that analysis of the results of a 2013 household survey "indicates that 64.7% [of economically active heads of household] worked within Cheshire West and Chester and 35.3% worked elsewhere, particularly Cheshire East, Greater Manchester, Wirral, Wrexham and Flintshire"[35]. Thus, some links to Greater Manchester are identified, but there is no suggestion that parts of Cheshire West and Chester lie within the same housing market area as parts of Greater Manchester, or vice versa.

St Helens and Warrington

4.40 The Mid Mersey SHMA covers the local authority areas of St Helens and Warrington, along with Halton. It concludes that: "The Mid-Mersey sub-region comprises the three local authorities of Halton, St.Helens and Warrington and the data presented in this section strongly supports the sub-region as a selfcontained HMA. The data about household and population moves suggests that Mid-Mersey has a relatively high level of self-containment although the evidence points to higher levels of in-migration into Warrington. Data for travel to work patterns is less clear cut reflecting the area's strong transport links and strategic accessibility which support longer-distance commuting patterns including to both the Liverpool and Manchester City Regions. There is also some evidence of an increase in commuting since 2001."[36]

4.41 One of the questions discussed in the inspector's report for Warrington's recent Core Strategy public examination was: "Has the Housing Market Area (HMA) for Warrington been identified properly, and is it the appropriate starting point for considering Warrington's housing requirement?" After two pages of analysis, the inspector concluded that "the Mid-Mersey HMA is an appropriate starting point which provides the strategic housing context for the Plan."[37]

West Lancashire

4.42 The West Lancashire SHMA refers to two previous studies which both concluded that West Lancashire forms part of a Liverpool City Region North housing market area that also includes Halton, Knowsley, Liverpool, St Helens, Sefton and Wirral[38]. The assessment for West Lancashire is then set within this context.

[34] Arc4 (July 2013), *Cheshire West and Chester 2013 Strategic Housing Market* Assessment, paragraph 3.6
[35] Ibid, paragraph 3.34
[36] GL Hearn and jg Consulting (October 2011), *Strategic Housing Market Assessment: Report for Halton, St.Helens and Warrington – Final Report (Amended)*, paragraphs 3.17-3.18
[37] The Planning Inspectorate (May 2014), *Report to Warrington Borough Council by Mike Fox*, paragraph 60
[38] Nevin Leather Associates (May 2009), *West Lancashire Housing Market Assessment*, paragraph 2.10

Chorley

4.43 The Central Lancashire SHMA covers the local authority area of Chorley, along with Preston and South Ribble. It appears to have accepted Central Lancashire as an appropriate housing market, and then conducted the assessment on that basis. However, it does identify that the area records a resident workforce retention rate of approximately 77%, and that 70% of household moves originate and reside within the boundary, with net in-migration mainly arising from Bolton, Wigan and West Lancashire[39]. Consequently, although some links to the north-western parts of Greater Manchester are identified, the Central Lancashire housing market area is seen to meet the generally used self-containment thresholds.

Blackburn with Darwen

4.44 Blackburn with Darwen has undertaken a joint strategic housing market assessment with Hyndburn, and this is currently being updated. The last report takes a Housing Market Areas study published by the North West Regional Assembly in 2008 as its starting point, which identified Blackburn with Darwen and Hyndburn as a distinct and separate housing market area[40]. The report then considers evidence on migration, commuting and house prices, concluding that it indicates a high level of self-containment. It notes that travel to work patterns exist "between Hyndburn and Greater Manchester and links between Blackburn and Bolton so that boundaries are never absolute", but these do not appear to be considered significant[41].

Rossendale

4.45 The strategic housing market assessment for Rossendale includes a separate section on defining the housing market area, and considers migration and commuting data as well as qualitative evidence. It concludes that "Borough wide levels of self containment are relatively high and are close to the threshold of 70%. If long distance moves were excluded the self containment would likely exceed the threshold set of 70%."[42] Links to Greater Manchester are not seen to be significant, in contrast to the conclusions of the national research discussed above, although reference is made to the fact that Rossendale forms part of the same travel to work area as Blackburn, Hyndburn and Ribble Valley as defined by ONS.

Calderdale

4.46 Calderdale's strategic housing market assessment explains that "Calderdale's housing market is embedded within a wider functional housing market area,

[39] Outside Consultants on behalf of Chorley Council, Preston City Council and South Ribble Borough Council (August 2009), *Strategic Housing Market Assessment 2009: Final Report*, paragraphs 3.5.1, 6.1.3 and 3.7.2

[40] Blackburn with Darwen Borough Council and Hyndburn Council (January 2009), *Strategic Housing Market Assessment 2008: Incorporating the Housing Market Area of Blackburn with Darwen and Hyndburn*, paragraph 2.3

[41] Ibid, paragraph 2.67

[42] Fordham Research (February 2009), *Rossendale Strategic Housing Market Assessment 2008: Final Report*, p.28

the Leeds City Region housing market area. … Recent sub-regional housing market research conducted on behalf of the Yorkshire and Humber Regional Assembly identified the Calderdale authority as operating as its own distinct housing market area"[43]. The report notes that the aforementioned research identifies less cross border interaction than other West Yorkshire authorities due to the physical divide of the Pennines[44], which is particularly relevant in terms of its relationship with Greater Manchester.

Kirklees

4.47 The research conducted by DTZ on behalf of the Yorkshire and Humber Regional Assembly also informed the Kirklees SHMA. It suggested that Kirklees was covered by two separate market areas, Huddersfield and Dewsbury-Batley, but further work by ECOTEC and Sheffield University "identified Kirklees as being its own housing market area, with the suggested geography of analysis coterminous with the local authority boundary". It also "highlighted a 'reference area' for Kirklees which included Calderdale, Wakefield and Barnsley" and noted the important linkage with Leeds as a major source of employment within the sub-region[45].

Summary

4.48 The strategic housing market assessments covering districts adjoining Greater Manchester generally recognise the need to consider cross-boundary linkages, and in many cases this includes the relationship with parts of Greater Manchester. However, none of those assessments specifically include parts of Greater Manchester, nor do they recommend that the district in question would be better assessed in combination with part or all of Greater Manchester.

Migration

4.49 The Office for National Statistics (ONS) publishes internal migration statistics, estimating movements between individual local authorities. The estimates are produced using a combination of data from the National Health Service Central Register (NHSCR), the Patient Register Data Service (PRDS) and the Higher Education Statistics Agency[46].

4.50 The data below covers the period 2008-2013, so as to minimise the impacts of individual years being potentially unrepresentative. The following table identifies the flow of migrants into and out of Greater Manchester from adjoining districts for the period 2008-2013 (together with Cheshire West and Chester since the former district of Vale Royal was identified as being in the

[43] GVA et al (April 2011), *Shaping the Housing Future of Calderdale: Strategic Housing Market Assessment*, p.iii
[44] Ibid, paragraph 3.6
[45] GVA and Edge Analytics (May 2012), *Kirklees Strategic Housing Market Assessment: Final Report*, paragraphs 2.32-2.35
[46] For details of the methodology see http://www.ons.gov.uk/ons/guide-method/method-quality/specific/population-and-migration/estimating-internal-migration-customer-guidance-notes.pdf

same housing market area as most of Greater Manchester under some definitions in the NHPAU research). The rate of flow per 1,000 population of the district, using the 2013 mid-year population estimates, is also included as this gives an indication of the significance of the flows compared to the size of each district.

	Number of people migrating out of and into Greater Manchester (2008-2013)					
	Gross migration into Greater Manchester	Gross migration from Greater Manchester	Net migration from (+) or into (-) Greater Manchester	2013 mid year population estimate	Rate of gross migration into GM per 1,000 population	Rate of gross migration from GM per 1,000 population
Blackburn with Darwen	4,580	4,150	-430	147,369	31	28
Calderdale	2,730	3,640	910	206,355	13	18
Cheshire East	11,830	16,880	5,050	372,707	32	45
Cheshire West and Chester	5,550	6,210	660	331,026	17	19
Chorley	3,740	5,030	1,290	110,505	34	46
High Peak	4,940	5,980	1,040	91,111	54	66
Kirklees	5,210	5,490	280	428,279	12	13
Rossendale	4,660	6,340	1,680	68,744	68	92
St Helens	4,930	4,850	-80	176,221	28	28
Warrington	6,370	8,530	2,160	205,109	31	42
West Lancashire	4,460	4,370	-90	111,314	40	39

4.51 Some of the rates of flow from and to districts adjoining Greater Manchester appear to be quite significant. This is particularly the case for Rossendale and High Peak, where there is a net inflow from Greater Manchester. The NHPAU research identified Rossendale as being in the same housing market area as Blackburn with Darwen, Hyndburn and Ribble Valley (using its single tier silver standard geography), but the flows into and out of Greater Manchester are more than twice as high (for the period 2008-2013, out-migration from Rossendale to the other three districts in its housing market area was 1,680 and in-migration was 1,770). This may partly reflect that there is far more housing and employment in Greater Manchester than in the three other districts in Rossendale's housing market area, but it is also a function of the strong relationships with the northern parts of Greater Manchester.

4.52 The gross flows to and from Greater Manchester are reasonably similar for many of the districts, even where the rates of migration differ significantly, which reflects the impact that the size of a district has on the rate of migration measure. The gross flows to and from Cheshire East stand out, as does the high level of net in-migration from that district to Greater Manchester. The flows to and from Warrington are also relatively high.

4.53 The next table provides similar information for each of the ten Greater Manchester local authority areas, but in this case the flows are to and from the rest of Greater Manchester (excluding the district in question) as flows within the district itself are not included in the ONS data. The data in this table is not therefore wholly comparable with that in the above table, but it provides a useful context for identifying the relative strength of connections of different districts with Greater Manchester.

	Number of people migrating out of and into the rest of Greater Manchester (2008-2013)					
	Gross migration into the rest of Greater Manchester	Gross migration from the rest of Greater Manchester	Net migration from (+) or into (-) the rest of Greater Manchester	2013 mid year population estimate	Rate of gross migration into rest of GM per 1,000 population	Rate of gross migration from rest of GM per 1,000 population
Bolton	15,790	17,130	1,340	280,057	56	61
Bury	16,570	18,690	2,120	186,527	89	100
Manchester	72,640	54,530	-18,110	514,417	141	106
Oldham	16,210	15,930	-280	227,312	71	70
Rochdale	14,990	15,320	330	212,120	71	72
Salford	31,720	29,650	-2,070	239,013	133	124
Stockport	18,080	24,170	6,090	285,032	63	85
Tameside	16,160	19,510	3,350	220,597	73	88
Trafford	20,510	26,310	5,800	230,179	89	114
Wigan	10,900	12,330	1,430	319,690	34	39

4.54 In terms of the relationship between each Greater Manchester district and the rest of Greater Manchester, the above table suggests that Wigan's is by far the weakest. This may partly explain why the NHPAU research identified Wigan as being in a separate housing market area to the rest of Greater Manchester (using its silver standard single tier geography). However, its relationship with the districts in that housing market area (Halton, Knowsley, Liverpool, St Helens, Sefton, Warrington and West Lancashire) is significantly weaker than its relationship with Greater Manchester, with gross out migration to those seven districts totalling 9,280 over the period 2008-2013, and gross in migration from those seven districts totalling 8,700.

4.55 Similar information can be derived from the 2011 Census, but this covers only a single year. However, fully comparable data for districts within and outside Greater Manchester can be utilised, as it is possible to calculate the flows between each Greater Manchester district and the whole of Greater Manchester, whereas the ONS data above only relates to the flows between each Greater Manchester district and the rest of Greater Manchester excluding that district. The relevant data is shown in the following table.

	Number of people migrating out of and into Greater Manchester (2011 Census)					
	Gross migration into Greater Manchester	Gross migration from Greater Manchester	Net migration from (+) or into (-) Greater Manchester	Resident population	Rate of gross migration into GM per 1,000 population	Rate of gross migration from GM per 1,000 population
Bolton	21,343	21,566	223	276,786	77	78
Bury	13,523	13,416	-107	185,060	73	72
Manchester	69,969	68,569	-1,400	503,127	139	136
Oldham	17,251	16,824	-427	224,897	77	75
Rochdale	16,936	17,199	263	211,699	80	81
Salford	22,047	22,730	683	233,933	94	97
Stockport	17,711	17,964	253	283,275	63	63
Tameside	16,332	16,358	26	219,324	74	75
Trafford	15,840	16,568	728	226,578	70	73
Wigan	21,515	21,273	-242	317,849	68	67
Blackburn with Darwen	842	601	-241	147,489	6	4
Calderdale	566	599	33	203,826	3	3
Cheshire East	2,683	3,293	610	370,127	7	9
Cheshire West and Chester	1,136	1,046	-90	329,608	3	3
Chorley	840	1,033	193	107,155	8	10
High Peak	920	1,031	111	90,892	10	11
Kirklees	895	894	-1	422,458	2	2
Rossendale	955	1,181	226	67,982	14	17
St. Helens	991	824	-167	175,308	6	5
Warrington	1,556	1,663	107	202,228	8	8
West Lancashire	836	804	-32	110,685	8	7
Greater Manchester	232,467	232,467	0	2,682,528	87	87

4.56 This evidence paints a similar picture to that from the ONS for the period 2008-2013. Cheshire East has the highest gross flows to and from Greater Manchester of any of the surrounding districts, followed by Warrington. It also has the highest net inflow from Greater Manchester. As with the ONS data, the 2011 Census suggests that the highest flow rates relative to the size of the population are from Rossendale followed by High Peak. However, using the 2011 Census measure of flows to and from the whole of Greater Manchester, rather than the ONS measure of flows to the rest of Greater Manchester, results in Wigan's flows appearing much more similar to those of other Greater Manchester districts, and indeed they are above those of Stockport.

4.57 This last issue can be considered in more detail by analysing the proportion of migrants from and to each district that are accounted for by Greater Manchester, as shown below. Using this measure, the proportions of flows to and from Wigan accounted for by Greater Manchester are similar to those of other Greater Manchester districts. The difference between this measure and the ONS data may be explained by a relatively high level of self-containment of migration within Wigan. Manchester can be seen to have a wider spread of migration, with Greater Manchester only accounting for 72% of all its in-migrants. In terms of surrounding districts, the highest proportions of migration flows accounted for by Greater Manchester are for Rossendale and High Peak.

	Flows into and from Greater Manchester (2011 Census)			
	Flow from district into Greater Manchester	Flow to GM as a % of total migration from district to England and Wales	Flow into district from Greater Manchester	Flow from GM as a % of total migration to district from England and Wales
Bolton	21,343	83.21	21,566	85.44
Bury	13,523	80.19	13,416	84.65
Manchester	69,969	80.83	68,569	72.26
Oldham	17,251	85.62	16,824	90.10
Rochdale	16,936	82.75	17,199	88.01
Salford	22,047	82.37	22,730	78.30
Stockport	17,711	75.73	17,964	82.79
Tameside	16,332	84.70	16,358	89.09
Trafford	15,840	75.19	16,568	81.68
Wigan	21,515	80.67	21,273	82.53
Blackburn with Darwen	842	5.92	601	4.60
Calderdale	566	2.80	599	2.99
Cheshire East	2,683	7.93	3,293	9.67
Cheshire West and Chester	1,136	3.55	1,046	3.37
Chorley	840	8.87	1,033	10.30
High Peak	920	11.21	1,031	12.79
Kirklees	895	2.19	894	2.17
Rossendale	955	14.85	1,181	19.10
St. Helens	991	7.27	824	6.25
Warrington	1,556	8.52	1,663	9.23
West Lancashire	836	8.80	804	8.28
Greater Manchester	232,467	81.04	232,467	80.34

4.58 Depending on whether gross flows or the proportion of migrants are considered, the migration flows between surrounding districts and Greater Manchester appear to be most significant for Cheshire East, Warrington, Rossendale and High Peak. It is therefore useful to look at the main sources

and destinations for migrants in relation to each of those districts. The table below shows the top five sources and destinations of migrants for each of the aforementioned districts, as well as the flows to and from Greater Manchester as a whole.

Migration flows from 2011 Census					
Migration flows into Cheshire East			Migration flows out of Cheshire East		
Source	Number	% of total	Destination	Number	% of total
Cheshire East	21,594	63.39	Cheshire East	21,594	63.83
Cheshire West and Chester	1,115	3.27	Cheshire West and Chester	1,011	2.99
Stockport	1,070	3.14	Manchester	944	2.79
Manchester	915	2.69	Stockport	782	2.31
Trafford	554	1.63	Newcastle-under-Lyme	440	1.30
Greater Manchester	3,293	9.67	Greater Manchester	2,683	7.93
Migration flows into High Peak			Migration flows out of High Peak		
Source	Number	% of total	Destination	Number	% of total
High Peak	5,058	62.77	High Peak	5,058	61.61
Tameside	334	4.14	Tameside	276	3.36
Stockport	301	3.74	Stockport	250	3.05
Manchester	205	2.54	Manchester	234	2.85
Cheshire East	133	1.65	Cheshire East	203	2.47
Greater Manchester	1,031	12.79	Greater Manchester	920	11.21
Migration flows into Rossendale			Migration flows out of Rossendale		
Source	Number	% of total	Destination	Number	% of total
Rossendale	3,754	60.72	Rossendale	3,754	58.36
Rochdale	430	6.96	Rochdale	292	4.54
Bury	388	6.28	Bury	272	4.23
Hyndburn	193	3.12	Hyndburn	243	3.78
Burnley	159	2.57	Burnley	163	2.53
Greater Manchester	1,181	19.10	Greater Manchester	955	14.85
Migration flows into Warrington			Migration flows out of Warrington		
Source	Number	% of total	Destination	Number	% of total
Warrington	11,781	65.38	Warrington	11,781	64.53
Halton	501	2.78	Manchester	484	2.65
Manchester	420	2.33	St. Helens	430	2.36
St. Helens	409	2.27	Halton	377	2.06
Cheshire West and Chester	372	2.06	Liverpool	350	1.92

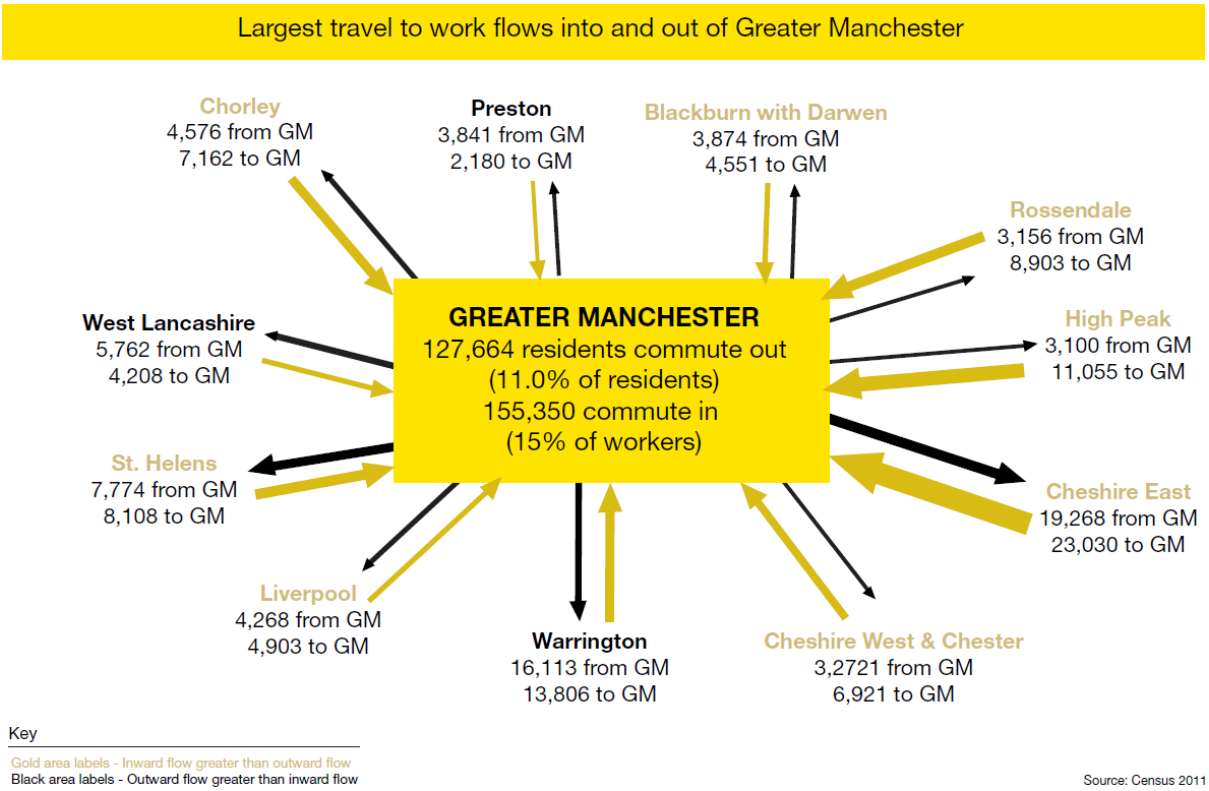
Greater Manchester	1,663	9.23	Greater Manchester	1,556	8.52

4.59 All four districts can be seen to have a reasonable level of self-containment of migration, typically in the range 60-65%, with the exception of migration flows from Rossendale which are slightly lower. The flows to and from Greater Manchester are much lower in comparison. Once self-containment has been excluded, the top three sources and destinations of migrants for High Peak are districts in Greater Manchester, followed by Cheshire East, suggesting that High Peak primarily faces westwards. The top two sources and destinations for Rossendale are districts in Greater Manchester, followed by districts to the north in Lancashire, providing a more mixed picture. However, overall the proportionate flows to and from Greater Manchester as a whole are relatively high. Cheshire West and Chester is the most important source and destination of migrants for Cheshire East, closely followed by Manchester and Stockport. No single district accounts for even 3% of Warrington's migrants, either as a source and destination, and, although Manchester ranks highly, the other highest flows to and from Warrington are generally with districts to the west and south rather than the east. In all cases, there are districts identified as being in separate housing market areas that rank towards the top of the sources and destinations of migrants for Cheshire East, High Peak, Rossendale and Warrington.

Commuting

4.60 The 2011 Census provides detailed information on commuting between districts. The diagram below shows the largest travel to work flows into and out of Greater Manchester[47].

[47] New Economy (August 2014), *thinking: new economy – briefing 36: Travel to work patterns in Greater Manchester*, p.4



4.61 The table below shows the sources of the twenty largest flows of commuters into Greater Manchester, and the destinations of the twenty largest flows from Greater Manchester, using 2011 Census data. On both measures, Greater Manchester has a commuting self-containment exceeding 85%, and the ten Greater Manchester districts form the top ten sources and destinations of commuters to and from Greater Manchester. The next highest flows are to and from Cheshire East and then Warrington.

Highest flows from residents in single districts to jobs in Greater Manchester			Highest flows from residents in Greater Manchester to jobs in single districts		
Source	Gross flow	% of total	Destination	Gross flow	% of total
Manchester	163,220	15.40	Manchester	240,912	23.34
Stockport	97,661	9.22	Trafford	93,228	9.03
Wigan	95,084	8.97	Stockport	86,176	8.35
Bolton	91,897	8.67	Bolton	85,018	8.24
Salford	82,523	7.79	Salford	84,170	8.16
Trafford	81,419	7.68	Wigan	77,996	7.56
Tameside	80,108	7.56	Oldham	69,501	6.73
Oldham	76,000	7.17	Tameside	58,402	5.66
Rochdale	69,827	6.59	Rochdale	57,546	5.58
Bury	66,622	6.29	Bury	51,412	4.98
Cheshire East	23,030	2.17	Cheshire East	19,268	1.87
Warrington	13,806	1.30	Warrington	16,113	1.56
High Peak	11,055	1.04	St. Helens	7,774	0.75
Rossendale	8,903	0.84	West Lancashire	5,762	0.56
St. Helens	8,108	0.77	Chorley	4,576	0.44
Chorley	7,162	0.68	Liverpool	4,268	0.41
Cheshire West and Chester	6,921	0.65	Blackburn with Darwen	3,874	0.38

Highest flows from residents in single districts to jobs in Greater Manchester			Highest flows from residents in Greater Manchester to jobs in single districts		
Source	Gross flow	% of total	Destination	Gross flow	% of total
Liverpool	4,903	0.46	Preston	3,841	0.37
Blackburn with Darwen	4,551	0.43	Cheshire West and Chester	3,272	0.32
West Lancashire	4,208	0.40	Rossendale	3,156	0.31
Greater Manchester	904,361	85.34	Greater Manchester	904,361	87.63

4.62 The next two tables compare the proportion of each district's commuters that work and/or live in Greater Manchester from the 2011 Census. The first table relates to flows with the whole of Greater Manchester, whereas the second looks at the flows between each Greater Manchester district and the rest of Greater Manchester.

	Flows from individual districts to Greater Manchester		Flows from Greater Manchester to individual districts		Net flow between district and Greater Manchester
	Gross flow	% of total flow from district	Gross flow	% of total flow to district	
Bolton	91,897	87.84	85,018	88.11	6,879
Bury	66,622	89.61	51,412	85.90	15,210
Manchester	163,220	90.04	240,912	83.51	-77,692
Oldham	76,000	92.76	69,501	92.81	6,499
Rochdale	69,827	90.84	57,546	87.94	12,281
Salford	82,523	90.30	84,170	85.38	-1,647
Stockport	97,661	85.50	86,176	83.44	11,485
Tameside	80,108	91.93	58,402	89.94	21,706
Trafford	81,419	88.01	93,228	83.29	-11,809
Wigan	95,084	74.44	77,996	81.37	17,088
Blackburn with Darwen	4,551	8.82	3,874	6.94	677
Calderdale	3,500	4.34	1,921	2.43	1,579
Cheshire East	23,030	15.78	19,268	13.07	3,762
Cheshire West and Chester	6,921	5.22	3,272	2.49	3,649
Chorley	7,162	16.20	4,576	14.17	2,586
High Peak	11,055	30.16	3,100	11.50	7,995
Kirklees	3,809	2.35	2,030	1.48	1,779
Rossendale	8,903	33.05	3,156	17.12	5,747
St. Helens	8,108	11.88	7,774	14.19	334
Warrington	13,806	16.21	16,113	16.17	-2,307
West Lancashire	4,208	9.91	5,762	14.24	-1,554
Greater Manchester	904,361	87.63	904,361	85.34	0

	Flows from individual districts into the rest of Greater Manchester		Flows from the rest of Greater Manchester into individual districts		Net flow between district and Greater Manchester
	Gross flow	% of total flow from district	Gross flow	% of total flow to district	
Bolton	29,433	28.13	22,554	23.38	6,879
Bury	33,686	45.31	18,476	30.87	15,210
Manchester	54,562	30.10	132,254	45.85	-77,692
Oldham	30,253	36.93	23,754	31.72	6,499
Rochdale	29,567	38.47	17,286	26.42	12,281
Salford	43,168	47.24	44,815	45.46	-1,647
Stockport	42,386	37.11	30,901	29.92	11,485
Tameside	38,784	44.51	17,078	26.30	21,706
Trafford	39,742	42.96	51,551	46.05	-11,809
Wigan	26,846	21.02	9,758	10.18	17,088

4.63 The first table reinforces the fact that there is a high level of commuting self-containment within Greater Manchester. In particularly, nine of the ten districts have more than 85% of their commuters working somewhere in Greater Manchester. The exception is Wigan, where less than 75% of its working residents are employed within Greater Manchester. Wigan also has the lowest proportion of its jobs taken by Greater Manchester residents, although its figure is still above 80%. The second table also shows the somewhat different relationship of Wigan within Greater Manchester, with only 10% of Wigan's workers residing in the rest of Greater Manchester. At less than 10,000 people, this is actually considerably lower than the number of people who work in Cheshire East and live in Greater Manchester excluding Wigan (which is 18,617). Wigan also has the lowest proportion of its residents working in the rest of Greater Manchester, although the actual numbers involved are significant at almost 27,000, which exceeds the flows into Greater Manchester from any of the adjoining districts. However, it is notable that the most important district outside Wigan in terms of a source and destination for Wigan commuters is Bolton, highlighting the district's links to the rest of Greater Manchester.

4.64 In terms of the districts adjoining Greater Manchester, both Rossendale and High Peak send almost one-third of their commuters into Greater Manchester. Cheshire East, Chorley and Warrington all send around 16% of their commuters to Greater Manchester, but the absolute flows from Cheshire East are by far the highest, followed by Warrington. The commuting flows from Greater Manchester to surrounding districts are generally lower than those in the opposite direction, except in the cases of Warrington and West Lancashire. However, there are still some large flows particularly to Cheshire East and Warrington. Rossendale fills the highest proportion of its jobs with residents of Greater Manchester at 17%, with the proportionate flows to Warrington, West Lancashire, St Helens, Chorley and Cheshire East all above 13%. The highest net commuting inflows to Greater Manchester are from Rossendale and High Peak. The commuting links with the two West Yorkshire districts of Calderdale and Kirklees can be seen to be the weakest of any of the districts surrounding Greater Manchester.

4.65 The next table shows the main sources and destinations for commuters to and from Cheshire East, Chorley, High Peak, Rossendale, St Helens, Warrington and West Lancashire, given that these appear to have a reasonably strong relationship with Greater Manchester when considering absolute or proportionate flows.

Commuting flows from 2011 Census					
Commuting flows into Cheshire East			Commuting flows out of Cheshire East		
Source	Number	% of total	Destination	Number	% of total
Cheshire East	94,009	63.79	Cheshire East	94,009	64.40
Cheshire West and Chester	9,041	6.14	Manchester	9,445	6.47
Stockport	8,560	5.81	Cheshire West and Chester	7,996	5.48
Newcastle-under-Lyme	4,557	3.09	Stockport	6,808	4.66
Manchester	4,162	2.82	Stoke-on-Trent	4,057	2.78
Greater Manchester	19,268	13.07	Greater Manchester	23,030	15.78
Commuting flows into Chorley			Commuting flows out of Chorley		
Source	Number	% of total	Destination	Number	% of total
Chorley	17,280	53.51	Chorley	17,280	39.08
South Ribble	4,071	12.61	South Ribble	6,537	14.79
Wigan	2,048	6.34	Preston	4,770	10.79
Bolton	1,468	4.55	Bolton	2,453	5.55
Preston	1,374	4.25	Wigan	1,912	4.32
Greater Manchester	4,576	14.17	Greater Manchester	7,162	16.20
Commuting flows into High Peak			Commuting flows out of High Peak		
Source	Number	% of total	Destination	Number	% of total
High Peak	19,288	71.55	High Peak	19,288	52.62
Derbyshire Dales	1,291	4.79	Stockport	3,324	9.07
Tameside	1,287	4.77	Manchester	3,314	9.04
Stockport	1,060	3.93	Tameside	2,735	7.46
Cheshire East	858	3.18	Cheshire East	1,709	4.66
Greater Manchester	3,100	11.50	Greater Manchester	11,055	30.16
Commuting flows into Rossendale			Commuting flows out of Rossendale		
Source	Number	% of total	Destination	Number	% of total
Rossendale	10,863	58.91	Rossendale	10,863	40.33
Hyndburn	1,337	7.25	Rochdale	2,587	9.60
Bury	1,281	6.95	Bury	2,176	8.08
Rochdale	892	4.84	Burnley	1,588	5.90

Burnley	825	4.47	Manchester	1,511	5.61
Greater Manchester	3,156	17.12	Greater Manchester	8,903	33.05
Commuting flows into St Helens			Commuting flows out of St Helens		
Source	Number	% of total	Destination	Number	% of total
St. Helens	32,661	59.63	St. Helens	32,661	47.87
Wigan	5,787	10.57	Warrington	6,804	9.97
Knowsley	2,593	4.73	Knowsley	5,725	8.39
Warrington	2,516	4.59	Liverpool	5,053	7.41
Liverpool	2,213	4.04	Wigan	4,073	5.97
Greater Manchester	7,774	14.19	Greater Manchester	8,108	11.88
Commuting flows into Warrington			Commuting flows out of Warrington		
Source	Number	% of total	Destination	Number	% of total
Warrington	50,422	50.60	Warrington	50,422	59.21
St. Helens	6,804	6.83	Halton	4,674	5.49
Wigan	6,539	6.56	Manchester	4,232	4.97
Halton	5,786	5.81	Trafford	3,226	3.79
Cheshire West and Chester	3,894	3.91	Liverpool	2,628	3.09
Greater Manchester	16,113	16.17	Greater Manchester	13,806	16.21
Commuting flows into West Lancashire			Commuting flows out of West Lancashire		
Source	Number	% of total	Destination	Number	% of total
West Lancashire	20,637	51.00	West Lancashire	20,637	48.61
Sefton	5,220	12.90	Sefton	5,476	12.90
Wigan	4,763	11.77	Liverpool	3,042	7.16
St. Helens	1,775	4.39	Wigan	2,483	5.85
Liverpool	1,461	3.61	Preston	1,298	3.06
Greater Manchester	5,762	14.24	Greater Manchester	4,208	9.91

4.66 Although the commuting flows to and from Greater Manchester as a whole are significant, when looking at individual districts the picture is much more mixed. For example, West Lancashire generally appears to have more significant commuting flows to districts outside Greater Manchester, and flows with Sefton are more significant than those with Wigan. Similarly, Chorley's commuting links with South Ribble are greater than those with either Bolton or Wigan, and flows to and from Preston are also important. There is a more complex picture for the other surrounding districts listed above, with districts both within and outside Greater Manchester being significant sources and destinations of commuters. However, none of the surrounding districts has a Greater Manchester district as both its most important external commuting source and destination, although it is notable that the top three external destinations for High Peak commuters are all Greater Manchester districts

and two of its top three sources are within Greater Manchester. The commuting links with Warrington are interesting as the most significant source of workers from Greater Manchester is Wigan, whereas the most important destinations in Greater Manchester for Warrington commuters are Manchester and Trafford, which highlights the complexity of commuting relationships and the difficulties in assigning districts to particular housing and economic market areas.

4.67 Overall, these commuting relationships therefore have some similarities with the migration links discussed above, with the strongest links generally being with Cheshire East, High Peak, Rossendale and Warrington, although there is a complex network of interactions.

Travel to work areas

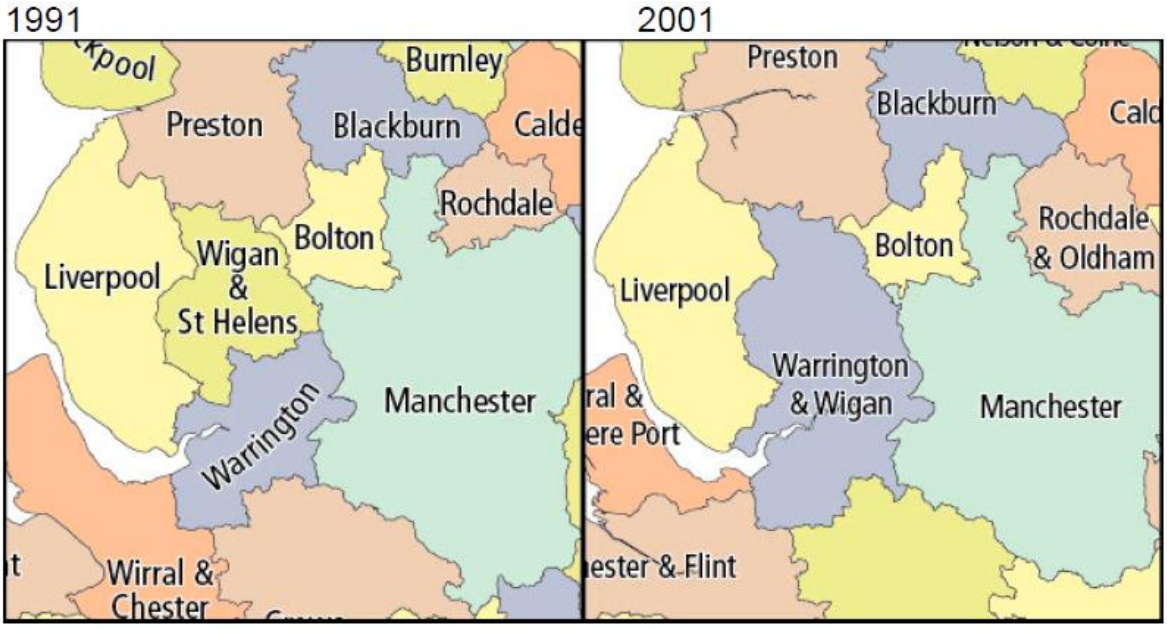
4.68 The ONS identifies travel to work areas (TTWAs) by analysing commuting flows from Census data, although this has not yet been done for the 2011 Census. The ONS explains that: "In practice, it is not possible to divide the UK into entirely separate labour market areas as commuting patterns are too diffuse. TTWAs have been developed as approximations to self-contained labour markets, i.e. areas where most people both live and work. As such they are based on a statistical analysis rather than administrative boundaries. … The current criteria for defining TTWAs are that at least 75% of the area's resident workforce work in the area and at least 75% of the people who work in the area also live in the area. The area must also have a working population of at least 3,500. However, for areas with a working population in excess of 25,000, self-containment rates as low as 66.66% are accepted. TTWA boundaries must be non-overlapping and contiguous, covering the entire UK between them."[48]

4.69 The number of identified TTWAs has reduced over time, from 308 based on the 1991 Census to 243 based on the 2001 Census. The two maps immediately below are taken from a 2007 ONS report[49] and compare the TTWAs identified in and around Greater Manchester. The third map below is taken from a separate report and shows the local authority boundaries as well as the TTWA boundaries from the 2001 Census[50].

4.70 The extent of the Manchester TTWA actually reduced slightly from 1991 to 2001, but still includes quite significant areas outside Greater Manchester including the northern part of High Peak and the northern part of Cheshire East, along with a very small part of Rossendale. Bolton remains a separate TTWA, albeit slightly smaller than in 1991. The Rochdale TTWA from 1991 expanded to become a Rochdale & Oldham TTWA in 2001. The third map below shows that the defined 2001 TTWAs for Manchester, Bolton and

[48] Office for National Statistics, *Introduction to the 2001-based Travel-to-Work Areas*, (October 2007), p.2
[49] Ibid, p.11
[50] Coombes, M. and Bond, S. *Travel-to-Work Areas: the 2007* review, Office for National Statistics, p.38

Rochdale & Oldham only extend slightly northwards of Greater Manchester. The vast majority of Wigan is identified as being part of a large Warrington & Wigan TTWA, filling the whole of the gap between the Manchester and Liverpool TTWAs.



4.71 There are some similarities between these travel to work areas and the housing market areas identified in the NHPAU research discussed above. For example, the three TTWAs of Manchester, Bolton and Rochdale & Oldham are collectively similar to the housing market area identified covering Greater Manchester, which under the gold standard single tier geography extended into the northern parts of Cheshire East and High Peak, and also included small areas in the south of Rossendale. However, Buxton is seen as having its own travel-to-work area, covering more than half of High Peak, which

suggests that district could be seen as much as a self-contained area as part of an extended Greater Manchester area.

4.72 The following table shows the level of self-containment for the four TTWAs covering Greater Manchester, using the ONS analysis of the 2001 Census data[51]. Supply-side self-containment is the number of people living and working in an area divided by the number of residents in the area, whereas demand side self-containment is the number of people living and working in an area divided by the number of jobs in the area.

TTWA name	Number of employed residents	Number of jobs at workplaces	% self-containment		Surface area (sq km)
			Supply-side	Demand-side	
Bolton	119,062	110,388	67.0	72.3	173
Manchester	765,273	845,302	88.4	80.0	1,412
Rochdale & Oldham	182,625	161,354	70.7	80.0	319
Warrington & Wigan	337,927	320,596	73.6	77.6	713

4.73 The figures for the Manchester TTWA are quite high, whereas Bolton's self-containment is relatively low although the APS data suggests that the outward links are primarily with the rest of Greater Manchester.

4.74 As noted above, the ONS uses a threshold of 75% for supply-side and demand-side self-containment when identifying travel to work areas, although a lower figure may be used for smaller areas. The 2011 Census commuting data discussed above suggests self-containment levels well-above this when considering Greater Manchester as a whole. This is perhaps unsurprising, as larger areas will generally have higher levels of self-containment, but it indicates that using Greater Manchester as a unit of analysis could be appropriate. The significant changes in the definition of travel to work areas over a relatively short period of time highlight the problems in using them as a unit of analysis, as this reduces the potential for comparability between different years, and more stable boundaries would therefore be helpful when identifying housing and employment floorspace needs.

Functional economic market areas

4.75 The national Planning Practice Guidance (PPG) states that:

"The geography of commercial property markets should be thought of in terms of the requirements of the market in terms of the location of premises, and the spatial factors used in analysing demand and supply – often referred to as the functional economic market area. Since patterns of economic activity vary from place to place, there is no standard approach to defining a functional economic market area, however, it is possible to define them taking account of factors including:

[51] Coombes, M. and Bond, S. *Travel-to-Work Areas: the 2007* review, Office for National Statistics, p.52-56

- extent of any Local Enterprise Partnership within the area;
- travel to work areas;
- housing market area;
- flow of goods, services and information within the local economy;
- service market for consumers;
- administrative area;
- Catchment areas of facilities providing cultural and social well-being;
- transport network." (paragraph 2a-012-20140306)

4.76 The Planning Advisory Service (PAS) advice note on objectively assessed need explains that "functional economic areas may be defined as labour market areas, which are areas of commuting closure – meaning that a high proportion of journeys to work occur within the area"[52].

4.77 The PAS guidance notes that: "One would expect HMAs and functional economic areas to be geographically similar, because in broad terms both are largely determined by the reach of a daily return trip. Just as households' location decisions are largely driven by access to jobs and services, business location decisions are largely driven by access to the workers that fill those jobs and the customers who consume those services"[53]. The PPG lists the housing market area as an important factor in defining the functional economic area, as well as travel to work areas which it also identifies as a key determinant of housing market areas.

Previous identification of functional economic market areas

4.78 The concept of a Manchester City Region, based around an analysis of functional economic areas, was introduced by the Northern Way initiative in 2004. The defined extent of the Manchester City Region, along with seven other city regions in the north of England, was based on analysis of travel-to-work data at 95% self-containment levels to major employment nodes including the Manchester Salford regional centre. This methodology was adopted as the best indicator available for an economically based definition, i.e. the flow of labour. The Northern Way stressed, however, that the city region boundaries were to be viewed as "fuzzy". Analysis of different "flows", for example travel-to-shop, travel-to leisure or housing markets, gave rise to different geographies, but an economically based approach was considered most suited to a strategy aimed at enhancing economic performance. Consequently, the Manchester City Region was defined as Greater Manchester together with High Peak, Warrington, Congleton and Macclesfield (both now part of Cheshire East, along with the former district of Crewe and Nantwich), and Vale Royal (now part of Cheshire West and Chester, along with Chester, and Ellesmere Port and Neston). This boundary has some similarities to the silver standard single tier geography from the NHPAU research, but with the addition of Congleton and exclusion of Rossendale.

[52] Planning Advisory Service (June 2014), *Objectively Assessed Need and Housing Targets: Technical advice note*, paragraph 4.14
[53] Ibid, paragraph 4.15

4.79 The term 'Manchester City Region' was also used in the Manchester Independent Economic Review (MIER), which was a major economic study published in 2009. Its definition of the Manchester City Region was based around the concept of a 'core area' of the city region that contains the densest concentration of jobs, defined as the whole of the three local authority areas of Manchester, Salford and Trafford[54]. A background report to the MIER explains that: "There is a strong case for treating the Manchester, Salford and Trafford LADs [local authority districts] together as the core employment area for the Manchester City Region. With close to 500,000 people employed in these locations, and 72,000 in higher level employment, these are the local authority districts that house the substantial majority of the City Region's higher skilled jobs in office based sectors (Manchester City Centre and Salford Quays) along with large numbers of jobs in manufacturing and distribution on Trafford Park"[55].

4.80 The table below shows the proportion of higher managerial and professional people commuting to that core area, using 2001 Census data[56].

Table 2-3: Absolute numbers of Higher Managerial and Professional people commuting to Manchester, Salford and Trafford, 2001

Local authority district	No. of HMP residents in work	No. commuting to Manchester, Salford or Trafford	%
Stockport	19,026	7,381	38.8%
Bury	9,085	3,299	36.3%
Tameside	7,443	2,391	32.1%
Macclesfield	14,251	3,946	27.7%
Oldham	7,822	2,052	26.2%
High Peak	5,280	1,325	25.1%
Bolton	11,095	2,646	23.8%
Rochdale	7,516	1,777	23.6%
Rossendale	2,925	524	17.9%
Wigan	10,798	1,880	17.4%
Warrington	12,199	2,115	17.3%
Vale Royal	7,875	1,118	14.2%
Congleton	6,965	849	12.2%
Chorley	5,767	647	11.2%
St. Helens	6,000	517	8.6%
Chester	8,919	473	5.3%
Source: Census 2001			

4.81 Another MIER report states that a 15% threshold of higher managerial residents of a district working in the core area has been used to define the city

[54] Manchester Independent Economic Review (March 2009), *Understanding Labour Markets, Skills and Talent*, p.40
[55] Regeneris Consulting (January 2009), *Dense labour markets in the Manchester City Region: a working paper*, paragraph 8.3
[56] Ibid, p.8

region[57]. However, it then qualifies this, explaining that: "In consultation with MIER we made a minor adjustment to the boundary of MCR (specifically dropping Rossendale and adding Congleton) to reflect strategic definitions"[58]. This essentially resulted in the MIER using the same definition of the Manchester City Region as The Northern Way. If it had based its definition purely on the data analysis then its definition would have been Greater Manchester plus Macclesfield, High Peak and Rossendale. This is similar to the single tier silver standard housing market area identified in the NHPAU research, but excludes Vale Royal which was slightly below the 15% threshold.

4.82 The 2013 Integrated Greater Manchester Assessment refers to Greater Manchester as "the largest functional economic area outside London"[59]. It explains that "Greater Manchester's ten districts represent a coherent economic geography and, increasingly, we think and act as a one economic entity with a single labour market, high levels of connectivity and interdependent towns and cities. As with any large metropolitan area, different parts of Greater Manchester contribute to this functional geography in different ways"[60]. This definition of the functional economic area therefore excludes the districts outside Greater Manchester which had previously been included in the definitions of the Manchester City Region.

Existing partnerships

4.83 The PPG identifies any Local Enterprise Partnership and administrative area as being factors that should be taken into account when defining a functional economic market area (see paragraph 2a-012-20140306). The PAS guidance on objectively assessed need suggests that "authorities could define HMAs based on pre-existing relationships or partnerships between authorities, including Local Enterprise Partnerships (LEPs) and joint planning units", whilst also recommending that: "Any such HMAs should be sense-checked against the NHPAU geography and recent migration and commuting data and boundaries should be adjusted accordingly"[61].

4.84 As discussed earlier in section 3, there are very well-established partnerships and relationships at the Greater Manchester level. Greater Manchester has its own combined authority, local enterprise partnership, City Deal, Growth and Reform Plan, and integrated transport authority. There are also other important organisations established at this level to support the local economy, such as the Greater Manchester Chamber of Commerce and the Greater Manchester Business Leadership Council. Consequently, there is a strong

[57] Manchester Independent Economic Review (April 2009), *The Case for Agglomeration Economies*, p.43
[58] Ibid, p.44
[59] New Economy (April 2013), *Integrated GM Assessment – Economic evidence base: Final* draft, p.3, 6 and 31
[60] Ibid, paragraph 2.15
[61] Planning Advisory Service (June 2014), *Objectively Assessed Need and Housing Targets: Technical advice note*, paragraph 4.10

argument in terms of consistency for Greater Manchester being the starting point for analysing development requirements.

4.85 St Helens is part of the Liverpool City Region Local Enterprise Partnership, along with Halton, Knowsley, Liverpool, Sefton and Wirral, and these six districts also have their own combined authority (called the Halton, Knowsley, Liverpool, St Helens, Sefton and Wirral Combined Authority). High Peak is part of the Derby Derbyshire Nottingham Nottinghamshire (D2N2) Local Enterprise Partnership. Warrington, Cheshire East and Cheshire West and Chester together form the Warrington and Cheshire Enterprise Partnership. Blackburn with Darwen, Chorley, Rossendale and West Lancashire are within the Lancashire Local Enterprise Partnership area. Calderdale and Kirklees are part of the Leeds City Region Enterprise Partnership, as well as the West Yorkshire Combined Authority. All of these local enterprise partnerships have agreed City Deals with government. Consequently, every district adjoining Greater Manchester is part of an established structure, supported by Government funding, that places it in a different functional geography to Greater Manchester. This is a significant complicating factor when considering whether it would be appropriate to include any of those districts in the same assessment of housing and employment floorspace as Greater Manchester.

Other factors influencing the definition of functional economic market areas

4.86 As noted above, the PPG identifies a series of other factors that may be taken into account when defining a functional economic market area. Travel to work areas were discussed earlier, together with other issues affecting the definition of housing market areas.

4.87 The flow of goods, services and information within the local economy, and the service market for consumers, vary considerably depending on the economic sectors that are being considered. The difficulties of using such information to define functional economic areas are highlighted by the Manchester Independent Economic Review, which observed that “large numbers of firms in MCR [the Manchester City Region] identify themselves as having no trading links with other firms in MCR (particularly in engineering and textiles, and the creative/ digital/new media and ICT sectors). They are well-connected to firms outside the region, and these external links will be highly beneficial in increasing access to innovative ideas. These firms are an important conduit for innovations from elsewhere, but the flow to neighbouring firms within MCR is blocked. Their strong connections to firms outside MCR means that creative businesses have good access to innovative ideas. However their lack of internal networks means the spread of these innovations within MCR is limited”[62]. Consequently, an analysis of the flow of goods, services and information could lead to the identification of a very large functional economic area, given this external focus of many of Greater Manchester’s connections.

[62] Manchester Independent Economic Review (April 2009), *Reviewers’ report*, p.45-46

4.88 The service market for consumers also varies enormously depending on the products and sectors that are being considered. The market for some services will be very local, whereas others may extend beyond the sub-region. Manchester City Centre and the main town centres are an important focus for many service markets, enabling consumers to meet most needs within Greater Manchester. Similar issues affect the catchment areas of facilities providing cultural and social well-being.

4.89 The integrated nature of transport networks means that it is often very difficult to identify functional economic market areas on that basis. More successful economic areas often have strong external connections, which reduces the ability to separate them into discrete areas. The M60 provides an orbital motorway covering large parts of Greater Manchester, and is often cited as an area of search for businesses. However, businesses also identify the M62 corridor as an area of search, as this links three major conurbations (Greater Manchester, Merseyside and Leeds), highlighting the difficulties of using transport networks to identify functional economic areas. In administrative terms, many transport functions are the responsibility of the Greater Manchester Combined Authority, and are delivered through Transport for Greater Manchester. However, there are increasing efforts to undertake transport planning and decision-making at a pan-regional level, covering several functional economic areas, as demonstrated by the recent One North report[63] and the proposal of the Greater Manchester Combined Authority, South Yorkshire Integrated Transport Authority and West Yorkshire Metro to secure more control over key decisions on rail services[64].

Conclusions

4.90 As discussed at the start of this section, it is considered that the following four key principles should strongly influence the identification of the housing market area(s) and functional economic market area(s) that cover Greater Manchester:

1) Be strongly based on evidence;
2) Be the same for both housing and employment floorspace;
3) Not cut across local authority boundaries; and
4) Be manageable, having regard to the structures required for successful cross-boundary planning.

4.91 The Planning Advisory Service (PAS) advice note observes that: “Wherever the boundary is drawn, the resulting HMA will not be perfect, because no market area is perfectly self-contained. Some areas, probably just beyond the HMA boundary, will be closely linked to parts of the HMA”[65]. Similar issues apply to functional economic market areas. Consequently, as the analysis in

[63] 1North (July 2014), *One North: A Proposition for an Interconnected North*
[64] South Yorkshire Integrated Transport Authority, Metro and Greater Manchester Combined Authority (June 2012), *Expression of Interest to develop proposals for rail decentralisation for the North of England*
[65] Ibid, paragraph 4.18

this section demonstrates, there will always be an argument that the boundary of the area of assessment could be drawn differently, possibly with equally strong justification. Different ways of analysing the same data, as has been seen with the 2001 Census results, can lead to different conclusions on the appropriate area of assessment. Hence, irrespective of the boundary that is selected, it will be essential that there is close liaison with the local authorities immediately adjoining that boundary.

4.92 Regard also needs to be had to the benefits of a consistent definition of the area of assessment. The difference in the travel to work areas identified by ONS using the 1991 and 2001 Censuses highlight the problems associated with using data alone to identify the unit of analysis, as this is likely to lead to inconsistency and a lack of comparability over time.

4.93 The research on housing market areas in England conducted on behalf of the National Housing and Planning Advice Unit provides a useful starting point for identifying an appropriate area of assessment. This again highlights that different analytical methodologies result in alternative boundaries based on the same data. Its 'silver standard' geographies are most relevant, given that these do not subdivide individual local authorities. However, using the silver standard, there are differences between the upper tier of the two tier geography and the single tier approach, despite them being broadly similar in overall size. The single tier approach has Greater Manchester (excluding Wigan) forming part of the same housing market area as High Peak, and the former districts of Macclesfield (now in Cheshire East) and Vale Royal (now in Cheshire West and Chester). The upper tier of the two tier approach again has Greater Manchester (excluding Wigan) in the same housing market area as High Peak and Macclesfield, but Vale Royal is now excluded and Rossendale is included. This suggests that serious consideration needs to be given to whether it is appropriate to include Wigan in the same area of assessment as the rest of Greater Manchester, and whether districts outside Greater Manchester such as High Peak, Rossendale, Cheshire East, and Cheshire West and Chester, should be included.

Wigan

4.94 In terms of Wigan, the NHPAU research's silver standard single tier geography places Wigan in a separate housing market area to the rest of Greater Manchester, along with Halton, Knowsley, Liverpool, St Helens, Sefton, Warrington and West Lancashire. The upper tier of the two tier geography identifies Wigan as being part of a similar housing market area, but that also includes the former district of Vale Royal.

4.95 However, it is notable that two previous studies referred to in the West Lancashire SHMA both identified Halton, Knowsley, Liverpool, St Helens, Sefton and Wirral as forming a separate Liverpool City Region North housing market area, which did not include Wigan. Furthermore, since then a separate SHMA has been prepared for the three districts of Halton, St Helens and Warrington, which was accepted as being appropriate by the inspector at Warrington's recent Core Strategy examination despite Warrington not having

been identified as part of the aforementioned Liverpool City Region North housing market area that included Halton and St Helens. The ONS definition of travel to work areas based on the 2001 Census leads to yet another geography, with Wigan being identified as part of a different travel to work area to the rest of Greater Manchester instead being grouped with Warrington, St Helens, Halton, and small parts of Cheshire West and Chester and West Lancashire.

4.96 Consequently, despite the various analyses being based on 2001 Census data, there is a lack of agreement over the appropriate functional area boundaries in this part of the country, and we are essentially left with a series of overlapping geographies.

4.97 The most recent migration data suggests that Wigan has a more limited relationship with the rest of Greater Manchester than the other nine Greater Manchester districts, but it also indicates that Wigan's relationship with the rest of its housing market area as identified in the NHPAU research is even weaker. The commuting data from the 2011 Census also suggests that Wigan is less connected to the rest of Greater Manchester, with only 10% of Wigan's workers residing in the rest of Greater Manchester, far below the level of any other Greater Manchester district. Overall, both data sets point towards Wigan having a relatively high level of self-containment, for example it having the highest proportion of its jobs being filled by its own residents of any of the Greater Manchester districts. Nevertheless, previous definitions of functional economic areas have included Wigan with the rest of Greater Manchester.

4.98 This evidence points towards a conclusion that Wigan should either be part of the same assessment as Greater Manchester or assessed individually, rather than being grouped with the local authorities to its west, despite some of the housing market area and travel to work area definitions discussed above. Grouping it together with the other nine Greater Manchester districts would also have the benefit of being consistent with the well-established structures covering the whole of Greater Manchester that support strategic planning across the conurbation. However, as work progresses on the Greater Manchester Spatial Framework, it will be important to recognise Wigan's cross-boundary linkages outside Greater Manchester, and the fact that its links to the rest of Greater Manchester are weaker than those of the other nine Greater Manchester districts, and this may influence the degree to which development needs generated in Wigan can be met in the rest of Greater Manchester and vice versa.

High Peak

4.99 Several of the various analyses suggest that part or all of High Peak lies within the same functional area as Greater Manchester. Both the silver standard single tier and the silver standard upper tier of the two tier framework in the NHPAU research include High Peak in the same housing market area as Greater Manchester (excluding Wigan). Both the MIER and Northern Way boundaries of the Manchester City Region include High Peak, using two

different commuting-based definitions, and ONS includes the northern part of High Peak in the same travel to work area as more than half of Greater Manchester.

4.100 The recent High Peak SHMA recognises the complexity of its housing market, and the overlap with the markets of both Greater Manchester and Sheffield. However, it concludes that High Peak's self-containment is as high as any of the local housing market areas identified in the NHPAU research that cover parts of its district and stretch into adjoining districts, and its SHMA is written on that basis.

4.101 Districts in Greater Manchester account for the top three sources of migration to High Peak, and the top two destinations for migration from High Peak. Although there are some considerable flows to and from other locations, Greater Manchester appears most significant overall. However, High Peak has lower rates of migration to Greater Manchester proportionate to its total population than does Rossendale, due to higher levels of self-containment.

4.102 High Peak sends 30% of its employed residents to Greater Manchester compared to 53% who work in High Peak itself, demonstrating the importance of Greater Manchester as a supply of job opportunities. Commuting flows in the opposite direction are much less significant, with only 11% of High Peak jobs occupied by Greater Manchester residents. Although the ONS analysis of 2001 Census data shows the northern part of High Peak as being in the Manchester travel to work area, more than half of the district is identified as forming a separate Buxton travel to work area, which supports the conclusion in High Peak's SHMA that the district has a reasonably high level of self-containment and so is appropriate to consider as its own housing market area.

4.103 Overall, it can be seen that there are significant links between High Peak and parts of Greater Manchester which could justify including it within any Greater Manchester assessment of housing and employment floorspace needs. Equally, the conclusions of High Peak's SHMA, including in relation to its level of self-containment relative to other housing market area definitions covering the district, provide a strong argument for excluding High Peak from any Greater Manchester assessment. This combination of links and self-containment has some similarities with Wigan, but High Peak does not have the same established relationships with the rest of Greater Manchester for example lying in the separate Derby Derbyshire Nottingham Nottinghamshire (D2N2) Local Enterprise Partnership area. At this stage, it is proposed that High Peak should not be specifically included within the assessment of Greater Manchester's housing and employment floorspace needs, but throughout the production of the Greater Manchester Spatial Framework it will be important to give full consideration to the important links between High Peak and parts of Greater Manchester.

Rossendale

4.104 The NHPAU research comes to differing conclusions as to Rossendale's position depending on the precise methodology, with it being identified as part of the same housing market area as Greater Manchester (excluding Wigan) in the silver standard single tier approach, whereas it is placed in a different housing market area in the upper tier of the silver standard two tier geography (with Blackburn with Darwen, Hyndburn and Ribble Valley). Both the Northern Way and MIER definitions of the Manchester City Region exclude Rossendale. However, technically the latter's methodology could have led to Rossendale's inclusion, with it having a higher proportion of its higher managerial and professional residents commuting to the core area of Manchester, Salford and Trafford than Wigan, although the absolute numbers involved were much lower.

4.105 In the NHPAU's gold standard single tier approach, which cuts across local authority boundaries, only a relatively small part of the south of Rossendale is included in the same housing market area as Greater Manchester. This is very similar to the ONS analysis of travel to work areas, with the large majority of the district area being identified as part of the Blackburn travel to work area rather than in any of the Greater Manchester travel to work areas.

4.106 Rossendale has the highest rate of migration into and out of Greater Manchester, relative to its population size, of any district adjoining Greater Manchester. The flows to and from Greater Manchester are more than double those to the other three districts in Rossendale's silver standard single tier housing market area in the NHPAU research (Blackburn, Hyndburn and Ribble Valley). This may not be unexpected when comparing ten districts with three districts, and in terms of individual local authority areas the level of migration to and from the Lancashire districts to the north and west of Rossendale are still considerable.

4.107 Rossendale sends 33% of its employed residents to Greater Manchester, compared to just 40% who work in Rossendale itself, showing that Greater Manchester is a very important supply of job opportunities for the district. The proportion of Rossendale jobs occupied by Greater Manchester residents is much lower at 17%, although this is actually the highest figure for any of the districts adjoining Greater Manchester.

4.108 Rossendale's SHMA does not suggest that part, or all, of the district should be included in any Greater Manchester housing market areas, instead treating the district as its own housing market area. The evidence available suggests that, as with High Peak, a good argument could be made both for and against Rossendale's inclusion in any assessment of Greater Manchester's housing and employment floorspace needs. Relative to the size of Rossendale's population, the migration and commuting flows to and from Greater Manchester are actually even more significant than those for High Peak. However, there is much less consistency in the various studies in terms of whether all, part or none of Rossendale is included in the same functional area as Greater Manchester, and Rossendale is in the separate Lancashire Local Enterprise Partnership area. On that basis, it is proposed that Rossendale should not be specifically included within the assessment of

Greater Manchester's housing and employment floorspace needs, but, similar to High Peak, it will be essential to continue to assess and take into account the connections between Rossendale and Greater Manchester as work on the Greater Manchester Spatial Framework proceeds.

Cheshire East

4.109 The former district of Macclesfield (now part of Cheshire East, along with the former districts of Congleton, and Crewe and Nantwich) was identified by the NHPAU research as being in the same housing market area as Greater Manchester (excluding Wigan), in both the single tier silver standard geography and the silver standard upper tier of the two tier geography. It was also identified by ONS as being part of the Manchester TTWA, using 2001 Census data, and both the MIER and The Northern Way included it within their definition of the Manchester City Region.

4.110 On that basis there would be a strong argument to include the former district of Macclesfield in any assessment of Greater Manchester's housing and employment needs. However, given the importance of avoiding subdividing local authority areas, as discussed above, it is necessary to consider Cheshire East as a whole.

4.111 Although it identifies significant links with Greater Manchester, the Cheshire East SHMA concludes that areas outside Cheshire East, including parts of Greater Manchester, do not need to be included in the functional areas identified that cover the district. Instead it defines three functional market areas based around the three former district boundaries. The migration data indicates reasonably high rates of flow to and from Greater Manchester, although given the size of Cheshire East the flow rates are likely to be much higher for those areas closest to Greater Manchester. There are also strong migration links in other directions, for example with the adjoining districts of Cheshire West and Chester, and Newcastle-under-Lyme. The proportion of Cheshire East's commuters coming to and from Greater Manchester is notable but not especially high, similar to the rates from Chorley, St Helens and Warrington. However, the absolute numbers involved are significant, and the flows into Greater Manchester are by far the highest of any district outside Greater Manchester. Although ONS includes the former district of Macclesfield in the Manchester travel to work area, the majority of Cheshire East lies in different ONS travel to work areas than Greater Manchester.

4.112 Cheshire East lies in the separate Cheshire and Warrington Local Enterprise Partnership area. Its economic plan highlights a relatively high level of self-containment, with 77% of the employed residents of Cheshire and Warrington working within the sub-region and the LEP area being a net importer of labour[66]. However, it also highlights the fact that the sub-region is bounded by the Liverpool and Manchester City Regions as a major opportunity[67],

[66] 871: Cheshire and Warrington Local Enterprise Partnership (March 2014), *Cheshire and Warrington Matters: A Strategic and Economic Plan for Cheshire and Warrington*, p.16-17
[67] Ibid, p.11

identifying the concept of an Atlantic Gateway stretching between these areas as one of its three intervention priorities, and given this recognised role of Cheshire and Warrington it is perhaps unsurprising that there are significant commuting and migration flows with surrounding areas such as Greater Manchester.

4.113 Overall, this evidence suggests that it would not be appropriate to include the whole of Cheshire East within any assessment of Greater Manchester's housing and employment floorspace needs, given the principle of avoiding splitting local authority areas that was discussed above. However, there are clearly significant migration and commuting relationships between Greater Manchester and the northern part of Cheshire East that will need to be carefully considered as work on the Greater Manchester Spatial Framework progresses.

Cheshire West and Chester

4.114 The former district of Vale Royal (now part of Cheshire West and Chester) was included in both the Northern Way and MIER definitions of the Manchester City Region. The NHPAU research identifies it as being in the same housing market area as Greater Manchester (excluding Wigan) in its single tier silver standard geography, but not in the upper tier silver standard for the two tier approach where it is included with the Merseyside authorities (and Wigan). There is no indication in Cheshire West and Chester's SHMA that some, or all, of the local authority area should be seen as part of the same housing market area as any of the Greater Manchester districts.

4.115 Vale Royal was combined with two other districts to form Cheshire West and Chester (Ellesmere Port and Neston, and Chester), and none of the analyses suggests that those two districts form part of the same housing market area or functional economic area as Greater Manchester. When looking at Cheshire West and Chester as a whole, the migration and commuting rates are relatively low compared to the districts that adjoin Greater Manchester, although this is likely to mask higher rates from those areas with the best transport connections to Greater Manchester.

4.116 Consequently, given the importance of avoiding splitting local authority areas, there is a strong argument in favour of excluding the former district of Vale Royal, and the whole of Cheshire West and Chester, from any assessment of Greater Manchester's housing and employment floorspace needs.

Other local authority areas adjoining Greater Manchester

4.117 Although it is identified as forming part of the Manchester City Region in both the Northern Way and the Manchester Independent Economic Review, Warrington is not included in the same housing market area as the majority of Greater Manchester in the NHPAU research, instead being included in the Merseyside area along with Wigan and West Lancashire. A separate SHMA has been produced for Warrington, St Helens and Halton, which has recently

been accepted as an appropriate unit of analysis at the independent examination of Warrington's Core Strategy.

4.118 The above analysis suggests that there is no real evidence to suggest that it may be appropriate to include Blackburn with Darwen, Calderdale, Chorley, Kirklees, St Helens or West Lancashire in the same area of assessment as Greater Manchester, although it needs to be recognised that there may still be some functional links with those districts that should be taken into account.

Summary

4.119 Overall, having regard to the principles discussed above relating to the area of assessment being based on evidence, being the same for both housing and employment, not cutting across local authority boundaries and being manageable, it is proposed that Greater Manchester is an appropriate area of assessment for the identification of housing and employment needs. There are arguments in favour of including other areas, particularly High Peak and Rossendale, and the northern part of Cheshire East, but these are not considered to outweigh the benefits of using a well-established Greater Manchester boundary that recognises the separate analyses undertaken by adjoining districts which suggest they fall within different housing market areas to Greater Manchester, as well as the fact that such districts are part of important sub-regional structures that do not include any parts of Greater Manchester.

4.120 Notwithstanding this, the evidence clearly identifies a varied range of interrelationships between Greater Manchester and surrounding districts. These could impact on sub-market areas within Greater Manchester, and it will be essential that this is taken into account at subsequent stages when determining the most appropriate distribution of new housing and employment floorspace across Greater Manchester. It will also be important to liaise with surrounding districts to consider whether there would be any benefits in them helping to satisfy part of the housing and/or employment floorspace needs identified for Greater Manchester, or vice versa. Comments would be welcomed from districts outside Greater Manchester on how best to address these cross-boundary issues as work on the Greater Manchester Spatial Framework progresses.

4.121 The fact that previous strategic housing market assessments have separated Greater Manchester into four housing market areas shows that it is also important to consider the differences within the sub-region. However, **at this stage it is considered appropriate to focus on identifying overall requirements for Greater Manchester as a whole**. Consideration of smaller housing and economic markets, and patterns of migration and commuting, will be left until the next stage of work on the Greater Manchester Spatial Framework, when there is an analysis of how the total employment land and housing requirements for Greater Manchester should be distributed between the ten districts. It will be important to recognise the overlapping nature of sub-markets as part of that work, and avoid rigid boundaries that artificially sub-divide Greater Manchester.

Question 7: Do you agree that Greater Manchester is the appropriate unit of analysis for identifying employment land requirements? If not, what geographical area would you suggest would be the appropriate unit of analysis and why?

Question 8: Do you agree that Greater Manchester is the appropriate unit of analysis for identifying housing land requirements? If not, what geographical area would you suggest would be the appropriate unit of analysis and why?

Question 9: These are general questions rather than specific to this section. What analysis do you think should take place at the next stage in relation to sub-markets within Greater Manchester and potentially extending into neighbouring districts? Are you aware of any specific sub-markets that it will be particularly important to consider and, if so, what do consider are the boundaries and issues for that area?

5.0 Projections and forecasts

5.1 Methodologies for identifying housing and employment floorspace needs are generally heavily influenced by projections and forecasts. For example, the Government specifically identifies the DCLG household projections as the appropriate starting point for estimating overall housing need (paragraph 2a-014-20140306), and plan makers are also advised to take into account forecasts of quantitative and qualitative economic need, both in relation to housing and employment land assessments (paragraphs 2a-018-20140306 and 2a-032-20140306).

5.2 It is important to see projections and forecasts as one possible future given certain conditions, rather than an accurate prediction. They are informed by a range of assumptions about how different variables interrelate and how this may or may not change over time. All projections and forecasts inevitably carry a significant level of uncertainty, which generally increases considerably over time and for smaller geographical areas, and different methodologies can produce very different results.

Projections and forecasts used in this report

5.3 This assessment of Greater Manchester's housing and employment floorspace needs uses five main projections and forecasts:

- ONS population projections
- DCLG household projections
- Greater Manchester Forecasting Model
- Experian UK Regional Planning Service forecasts
- Cambridge Econometrics economic forecasts

5.4 In general, no individual projections and forecasts are inherently better than others, and just because one may have appeared more accurate in the past is no guarantee that it will prove to be so in the future. Consequently, it is appropriate to consider a range of sources and methodologies. The sources used here are from respected professional forecasters who are providing their best judgement, but they often come to different conclusions as there is no certainty over many of the variables and the relationships between them.

ONS population projections

5.5 The latest sub-national population projections published by ONS are 2012-based, and cover the period up to 2033 and beyond.

5.6 The ONS provides the following summary for its sub-national population projections:

> "These projections are based on the 2012 mid-year population estimates published on 26 June 2013 and a set of underlying demographic assumptions regarding fertility, mortality and migration based on local trends. They are consistent with the 2012-based national population projections for England. They are not forecasts and do not attempt to predict the impact that future government or local policies, changing economic circumstances or other factors might have on demographic behaviour. The trends for these projections take into account information from the 2011 Census. … Projections become increasingly uncertain the further they are carried forward due to the inherent uncertainty of demographic behaviour. This is particularly so for smaller geographical areas and detailed age and sex breakdowns."[68]

5.7 The methodology for the projections is summarised as follows:

> "The subnational population projections take the 2012 mid-year population estimates, which were published on 26 June 2013, as their starting point. The projected local authority population for each year is calculated by ageing on the population for the previous year, applying assumed local fertility and mortality rates to calculate the number of projected births and deaths, and then adjusting for migration into and out of each local authority. Local authority assumed levels of fertility, mortality and migration are derived from observed values during the previous five years and are constrained to the assumptions made in the 2012-based national projections. Finally, the subnational population projections are constrained to the national population projections for England."[69]

DCLG household projections

5.8 The Department for Communities and Local Government uses the ONS sub-national population projections as the basis for its sub-national household projections. The latest 2012-based sub-national population projections have not yet been translated by DCLG into household projections, and so the latest official household projections are the 2011-based interim projections covering the period 2011-2021.

5.9 DCLG provides the following summary of the methodology used for the 2011-based interim household projections:

> "The household projections are produced by applying projected household representative rates to the population projections published by the Office for National Statistics. Projected household representative rates are based on trends observed in Census and Labour Force Survey data. The assumptions underlying national household and population projections are demographic trend based. They are not forecasts as they do not attempt to predict the impact that future government policies, changing economic circumstances or other factors might have on demographic behaviour. They provide the

[68] Office for National Statistics (May 2014), *2012-based Subnational Population Projections for England*, p.2
[69] Ibid, p.12

household levels and structures that would result if the assumptions based on previous demographic trends in the population and rates of household formation were to be realised in practice."[70]

5.10 DCLG explains that: "The methodology for the 2011-based interim projections was based on the methodology used for the 2008-based projections, which was agreed after a review of the previous methodology and a public consultation"[71]. Despite this, there are significant differences in the household representative rates used in the two projections, which is partly the result of the 2011-based projections incorporating some of the results from the 2011 Census.

5.11 The 2011-based interim projections only cover a period of 10 years, whereas DCLG sub-national household projections normally cover a period of 25 years as was the case with the previous 2008-based projections. This short time period of the latest projections is a complicating factor when seeking to determine housing needs up to 2033.

Greater Manchester Forecasting Model

5.12 The Greater Manchester Forecasting Model (GMFM) is produced by Oxford Economics, providing an integrated economic and demographic model. The model was initially developed on behalf of the Manchester Salford Pathfinder as part of the housing market renewal initiative, but is now commissioned by New Economy on behalf of AGMA and outputs are published annually. A technical report accompanies the GMFM, setting out a description of the model and key data sources[72]. The latest version provides projections up to 2033.

5.13 The GMFM uses historic data as a basis for estimating inter-relationships between variables and future trends in those variables. The relationships are based on a detailed analysis of data and research, and the assumptions and relationships are constantly reassessed in light of new evidence and analysis. The GMFM is consistent with the regional, national and global models produced by Oxford Economics, both in terms of demographic and economic variables. There are checks and balances for long-term forecasts so that the approaches are reassessed if the figures appear unrealistic.

5.14 The integrated nature of the model means that there is an interaction between different economic and housing variables. For example, although the GMFM uses the same projected birth and death rates as does ONS in its population projections, the migration element of population change is modelled explicitly at the national, regional and local levels having regard to a range of economic, social and housing variables. The current version of the GMFM

[70] Department for Communities and Local Government (April 2013), *Household Interim Projections, 2011 to 2021, England*, p.2
[71] Department for Communities and Local Government (April 2013), *2011-based Interim Household Projections: Quality* Report, p.5
[72] Oxford Economics (Winter 2013), *Greater Manchester Forecasting Model – Technical Note: Model description and data sources*

uses a commuting matrix based on the 2001 Census for some calculations such as residence employment, and it is possible that some relationships could be seen to change when this is updated using 2011 Census data.

5.15 An additional scenario has been run through the GMFM using the scale of population growth for Greater Manchester over the period 2012-2033 identified in the ONS 2012-based subnational population projections, as this is considerably higher than the 2013 GMFM population forecast. This enables consideration of the additional economic activity that could result from that higher population growth. A more limited range of outputs are available from the model when running this type of scenario.

Experian UK Regional Planning Service forecasts

5.16 Experian produces quarterly forecasts, available at the Greater Manchester level, covering a range of variables such as GVA and employment by industry, working and total population, unemployment, and household spending. Its modelling approach takes UK variables as exogenous, imposed from its relevant monthly UK forecast, and its regional and local methodologies are set within this context. A detailed explanation of its approach is set out in a data guide[73]. The last outputs provide forecasts to 2031.

5.17 A key difference of the Experian forecasts compared to the GMFM is that it uses the ONS population projections as an input rather than modelling migration. The 2010-based projections are currently being used, but the data guide explains that the 2012-based projections will feature in the next release in September 2014[74]. For the period 2012-2031, the ONS 2010-based projections forecast population growth of 412,000 in Greater Manchester whereas the ONS 2012-based projections suggest much lower growth of 281,669, and so the current Experian forecasts would be expected to overestimate likely jobs growth.

Cambridge Econometrics economic forecasts

5.18 Economic forecasts produced by Cambridge Econometrics have also been used to inform this report. These provide forecasts of employment and GVA by sector, extending to 2040.

Economic forecasts

5.19 Economic forecasting is an inexact science and is prone to significant error. It is important to take this into account when estimating the development requirements for Greater Manchester.

[73] Experian (June 2014), *Data Guide: UK Regional Planning Service*
[74] Ibid, p.2

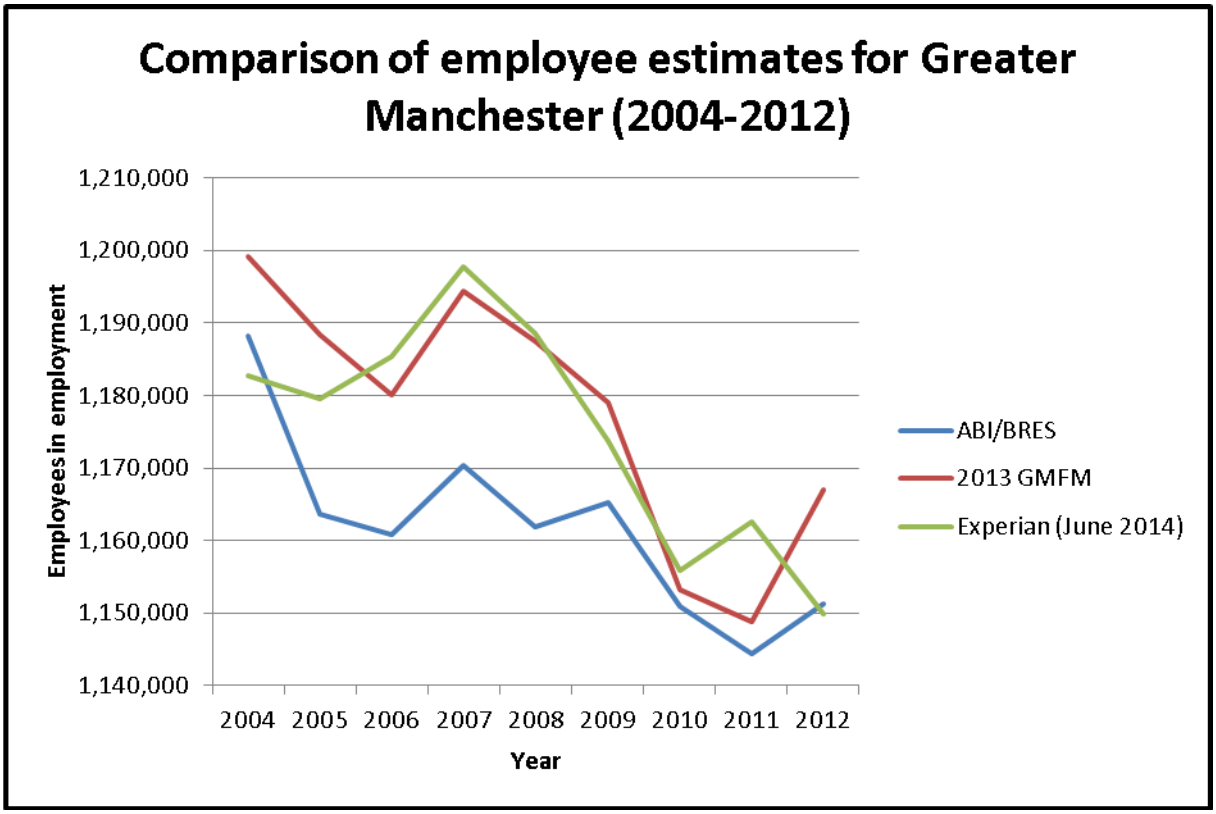
5.20 A recent book on the on the art and science of prediction highlighted three fundamental challenges for economic forecasting, which were summarised as follows:

"First, it is very hard to determine cause and effect from economic statistics alone. Second, the economy is always changing, so explanations of economic behaviour that hold in one business cycle may not apply to future ones. And third, as bad as their forecasts have been, the data that economists have to work with isn't much good either"[75].

5.21 Consequently, if the data that forecasts are being based on is questionable in terms of its accuracy, the relationships between different variables is uncertain, and those relationships are constantly evolving, then there is clearly a high risk that economic forecasts will significantly under- or overestimate actual levels of growth both overall and in individual economic sectors. It is therefore unsurprising that forecasts from alternative models can produce very different pictures of the future.

5.22 Silver's third point relating to the quality of economic data is highlighted by official statistics on the number of employees in an area. This information is fundamental to economic forecasts but there are significant issues with its use. For example, the graph below compares the government statistics for the number of employees in Greater Manchester with the figures identified in the 2013 GMFM and the June 2014 forecasts from Experian. The government statistics are based on survey data. The figures for 2004-2008 are from the Annual Business Inquiry (ABI), but due to changes in methodology the results before and from 2006 are not directly comparable. More substantial changes were seen in 2009 with the introduction of the Business Register and Employment Survey (BRES), which resulted in an estimated discontinuity of 317,000 employees at the national level in an upward direction[76]. The use of the ONS regional workforce job figures, as well as ABI/BRES data, results in GMFM and Experian providing different employee estimates for past years. As the GMFM technical report explains, "the model relies heavily upon published data which, unfortunately, is becoming less and less reliable with BRES data in particular coming under server criticism at local sectoral level"[77]. It can be seen from the graph that there are significant differences in the numbers for 2005-2009. This impacts on the pace of past decline, depending on the period under consideration, which in turn could affect the trends that feed into future forecasts.

[75] Silver, N. (2012), *The Signal and the Noise: The Art and Science of Prediction*, Penguin, London, p.185
[76] Office for National Statistics (December 2012), *Discontinuity analysis of the move from the Annual Business Inquiry to the Business Register Employment Survey*
[77] Oxford Economics (Winter 2013), *Greater Manchester Forecasting Model – Technical Note: Model description and data sources*, p.4

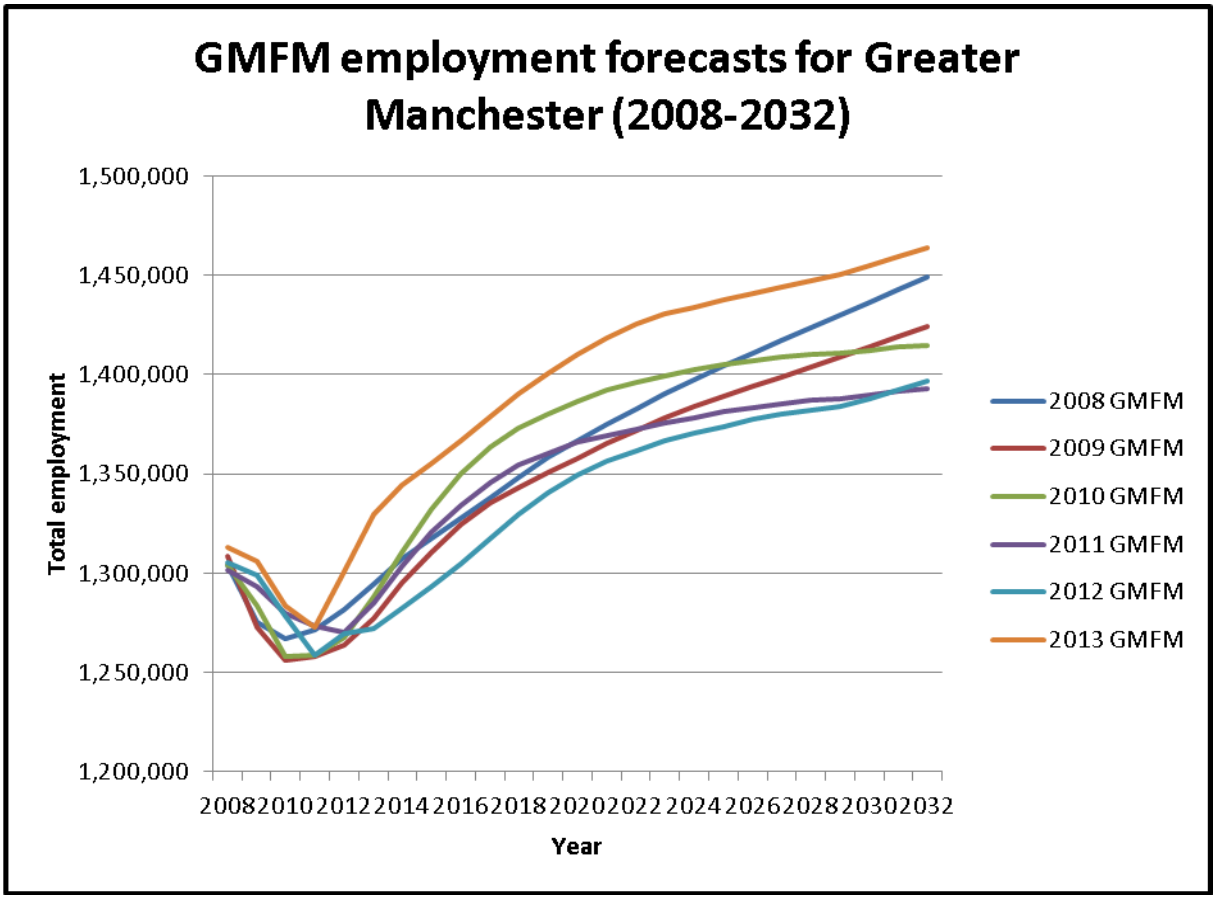


5.23 The Office for Budget Responsibility (OBR) was created in 2010 specifically to provide independent and authoritative analysis of the UK's public finances, and to increase confidence in forecasting figures used in budgets and comprehensive spending reviews. The table below provides a summary of its various forecasts of UK gross domestic product (GDP). The nature of the methodology and assumptions means that subsequent forecasts all point towards a similar level of growth in the medium term, but it can be seen that they have given very different views of the short-term picture and the timing of economic recovery. The bottom line of the table shows the percentage point difference between the highest and lowest GDP growth forecasts, which shows very considerable differences for 2012 and 2013.

Date of OBR projection	UK GDP forecast by year (annual percentage change)									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
March 2010	-4.9	1.2	2.3	2.8	2.9	2.7	2.7			
November 2010	-5	1.8	2.1	2.6	2.9	2.8	2.7			
March 2011	-4.9	1.3	1.7	2.5	2.9	2.9	2.8			
November 2011		1.8	0.9	0.7	2.1	2.7	3.0	3.0		
March 2012		2.1	0.8	0.8	2.0	2.7	3.0	3.0		
December 2012			0.9	-0.1	1.2	2.0	2.3	2.7	2.8	
March 2013			0.9	0.2	0.6	1.8	2.3	2.7	2.8	
December 2013				0.1	1.4	2.4	2.2	2.6	2.7	2.7
March 2014				0.3	1.8	2.7	2.3	2.6	2.6	2.5
Largest percentage point difference	0.1	0.9	1.5	2.9	2.3	1.1	0.2	0.3	0.2	0.2

5.24 The OBR forecasts are specifically intended to be independent, and are measuring the whole economy at a large geographical scale over a short period of time. Greater inaccuracies would normally be expected for more detailed forecasts over a longer period, such as those relating to smaller geographical areas or specific economic sectors, of the type that could inform estimates of the demand for employment land at the local level up to 2033.

5.25 The Greater Manchester Forecasting Model faces similar issues, as shown in the following graph which compares the employment forecasts for 2008-2032 from the last six iterations of the model. Although the shape of the trajectories is similar, the scale of forecast employment growth over that period varies significantly, with the lowest figure of 90,955 in the 2012 GMFM and the highest figure of 150,802 in the following year's 2013 GMFM. This demonstrates how forecasts can change considerably over a very short space of time.



Demographic projections

5.26 Although demographic projections are seen as fundamental to the process of determining future housing needs, they suffer from similar problems to economic forecasts, and historically have not always been proved to be particularly accurate. The PAS guidance on objectively assessed housing needs summarises the problems of relying on official household projections as follows:

"The official projections are trend-driven: they roll forward rates of birth, death, migration and household formation from a past period (the 'base period') into the future. There are three main reasons why the resulting household numbers may not provide a true picture of future housing demand.

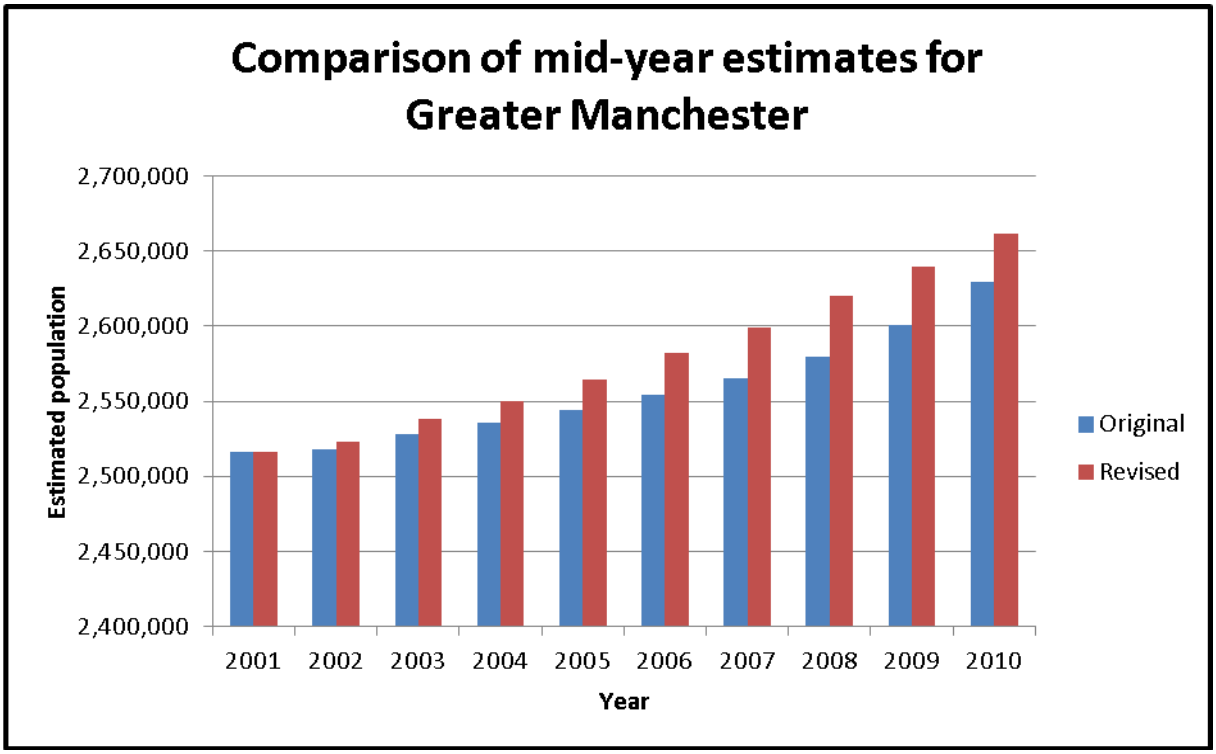
- The projections might be technically flawed. Often this is due to inaccurate historical data: the projections may not have caught up with the latest available data, or even these latest data may be open to doubt (an example is the Unattributable Population Change, discussed later). Sometimes there are other technical anomalies, which mean that the projections for individual places do not look credible.

- The projections in effect assume that the external (non-demographic) factors that drive demographic change will be the same as they were in the past (base period). But in reality these factors might change in future. For example, the macroeconomic climate might improve; there might be more local job opportunities; or planning policy in neighbouring areas might become more restrictive - shifting demand across administrative boundaries to the subject area.

- If used as a measure of demand, the projections in effect assume that in the base period the demand for housing land was fully met. But in practice it may be that past planning policy constrained housing development in the area, so the planned land supply fell short of demand. In that case, the projections will roll forward that constraint, so they will understate future demand."[78]

5.27 The mid-year population estimates for the period 2002-2010 were recently revised in light of the results of the 2011 Census, as shown in the following graph for Greater Manchester. This suggests that the 2008 mid-year estimate is now thought to have underestimated Greater Manchester's population by 40,000 people, or 1.53%. The mid-year estimates are an important input to the ONS population projections, and hence the DCLG household projections, demonstrating the problem of the quality of data on which forecasts are based.

[78] Planning Advisory Service (June 2014), *Objectively Assessed Need and Housing Targets: Technical advice note*, paragraph 5.3



5.28 In 2007, the Office for National Statistics produced an analysis of the accuracy of population projections over the last 50 years[79]. Some of the significant errors included the following:

- The 1955-based population projections estimated that the population in 1995 would be 53 million, which was more than 5 million below the actual figure because it did not foresee the 1960s baby boom
- In contrast, the 1965-based projection for the year 2000 was 75 million, but the actual UK population that year was only 59 million, with the overestimate being due to the extrapolation of the high birth rate of the 1960s
- The 1977-based projection for the year 2005 was 57.5 million compared to an actual UK population that year of 60.2 million, with the underestimate largely being the result of assumed long-term net outward migration

5.29 Looking at the projections from the 34 years prior to 2005, the projected UK population figure for 2005 ranged from 57.5 million in the 1977-based projections to 64.3 million in the 1971-based projections compared to an actual figure of 60.2 million (i.e. ranging from 4.4% too low to 6.8% too high). Individual elements feeding into the 1970s and 1980s projections were actually more inaccurate than the projections themselves, but overestimates of births were offset to a significant degree by underestimates of migration and overestimates of deaths. If all of these factors had been inaccurate in the same direction (i.e. all leading to an overestimate or underestimate of

[79] Office for National Statistics (Summer 2007), *Population Trends 128: Fifty years of United Kingdom national population projections: how accurate have they been?*, p.8-23

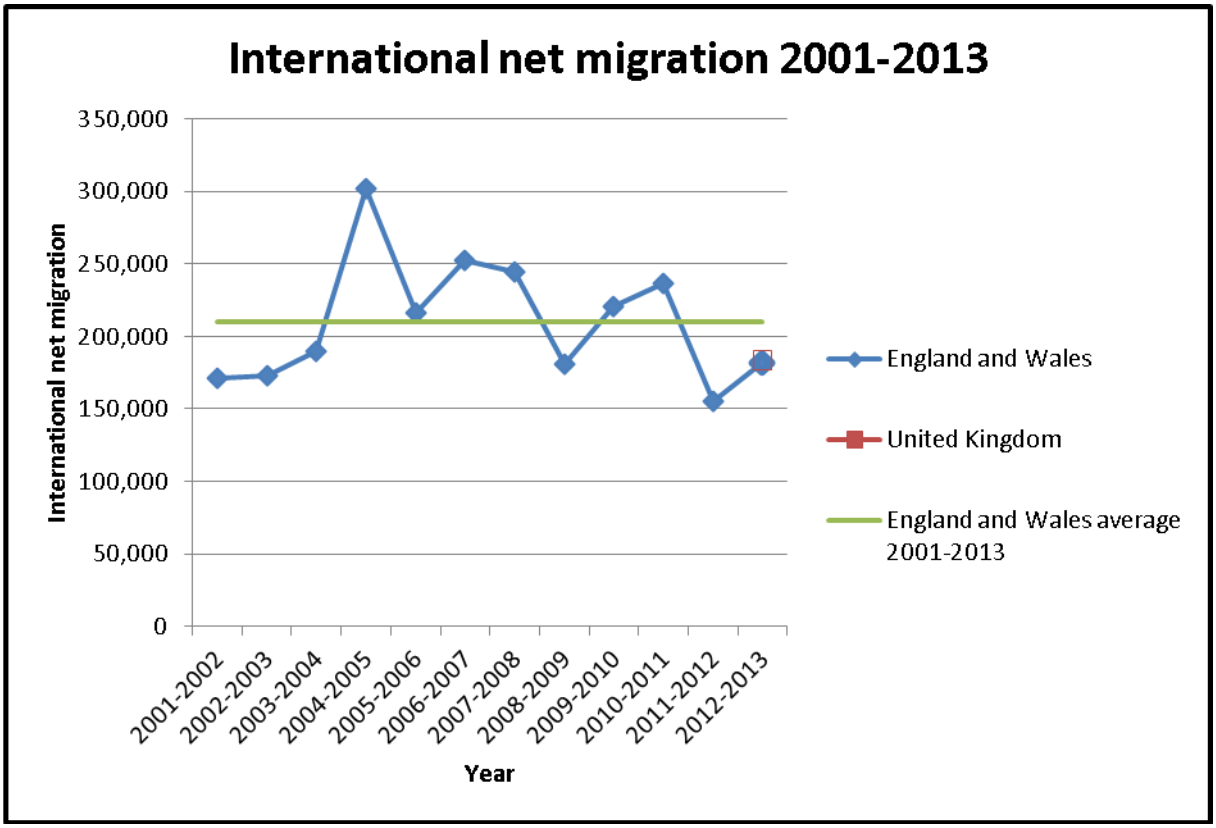
population) then the population projections would have been much more inaccurate overall than they actually were.

5.30 The assumptions underpinning the population and household projections are therefore constantly evolving. For example, in terms of birth rates, the average number of children per woman peaked in 1964 at 2.97, before dramatically reducing to 1.69 by 1977. This had increased slightly to 1.74 in the 2004-based population projections, but then further increased to 1.84 in the 2006-based, 2008-based and 2010-based projections, and then to 1.89 in the 2012-based projections[80].

5.31 Assumptions around international migration are also very significant. For example, estimates of annual long-term net international migration to the United Kingdom have continually changed, from 145,000 in the 2004-based projection, 190,000 in the 2006-based projections, 180,000 in the 2008-based projections, 200,000 in the 2010-based projections, and 165,000 in the 2012-based projections[81]. The table below shows net international migration to England and Wales, as taken from the mid-year population estimates, which can be seen to be broadly comparable to the United Kingdom figure in 2012-2013. The assumed long-term rates in the population projections are therefore a reduction on the recent average.

[80] Office for National Statistics (October 2009), *National population projections, 2008-based*, p.9, and Office for National Statistics (November 2013), *National population projections 2012-based Statistical bulletin*, p.12-13

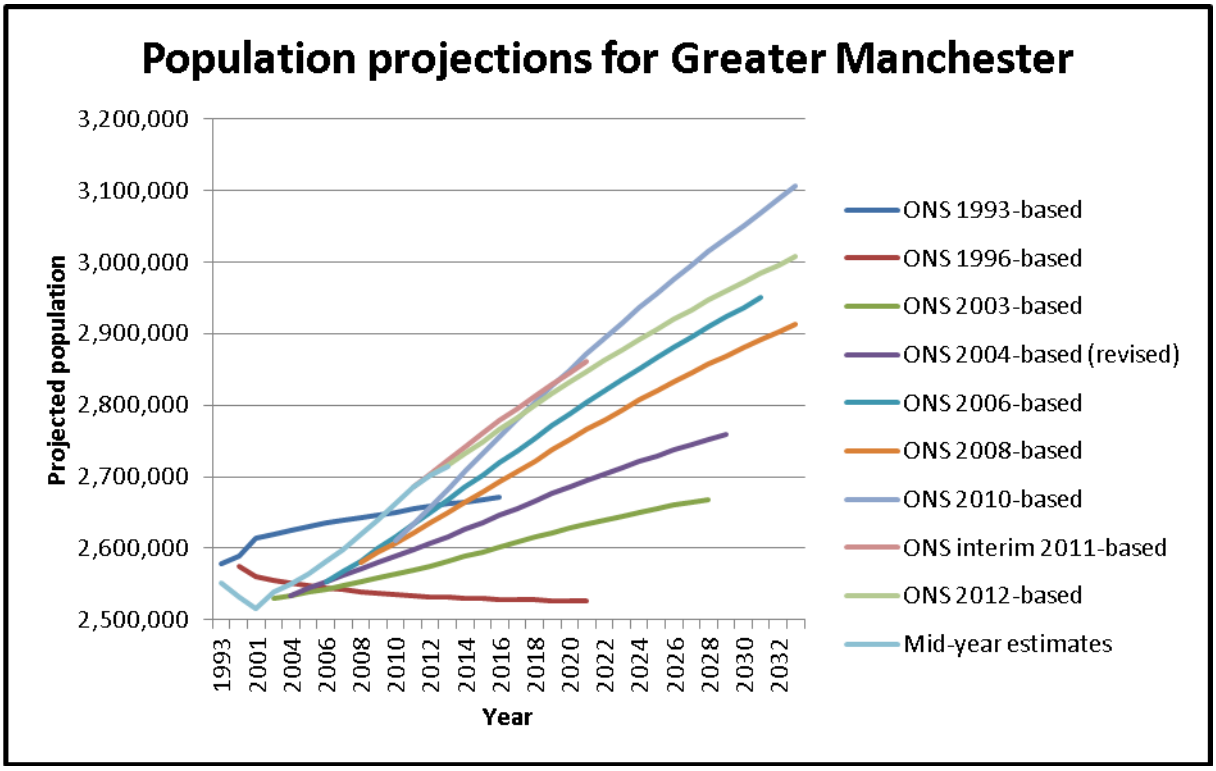
[81] Office for National Statistics (2008), *National Population Projections: 2006*-based, Series PP2 No 26, p.36, Office for National Statistics (October 2009), *National population projections, 2008-based*, p.8, and Office for National Statistics (November 2013), *National population projections 2012-based Statistical bulletin*, p.13



5.32 As the ONS explains, the interaction between variables is also important: "The projected numbers of future births and deaths are themselves partly dependent on the assumed level of net migration. Because migration is concentrated at young adult ages, the assumed level of net migration affects the projected number of women of childbearing age and hence the projected number of births"[82].

5.33 The graph below provides a comparison of population projections for Greater Manchester from the last two decades. The mid-year population estimates are also included as a comparison. Significant variance between the projections can be seen, for example with the projected population of Greater Manchester in 2028 ranging from 2,667,500 in the 2003-based projections to 3,014,580 in the 2010-based projections (with the latest projected figure from the 2012-based projections being 2,946,632).

[82] Office for National Statistics (November 2013), *National population projections 2012-based Statistical bulletin*, p.4



5.34 The table below compares the same population projections with the mid-year population estimates for Greater Manchester. The 1996-based projection for 2013 proved to be a very significant underestimate of the actual population, whereas the two most recent projections indicate a slight overestimate of growth.

	Projected Greater Manchester population by selected years				
Population projection	1996	2001	2006	2011	2013
ONS 1993-based	2,589,000	2,614,200	2,635,500	2,654,800	2,661,720
ONS 1996-based	2,575,500	2,559,900	2,544,200	2,533,300	2,531,420
ONS 2003-based			2,542,800	2,569,600	2,582,100
ONS 2004-based (revised)			2,554,100	2,597,600	2,616,400
ONS 2006-based			2,553,800	2,633,400	2,667,800
ONS 2008-based				2,622,000	2,650,200
ONS 2010-based				2,633,517	2,682,283
ONS interim 2011-based				2,685,386	2,722,678
ONS 2012-based					2,716,444
Mid-year estimates	2,531,400	2,516,100	2,582,300	2,685,386	2,714,944
Difference from mid-year estimate					
ONS 1993-based	57,600	98,100	53,200	-30,586	-53,224
ONS 1996-based	44,100	43,800	-38,100	-152,086	-183,524
ONS 2003-based			-39,500	-115,786	-132,844
ONS 2004-based (revised)			-28,200	-87,786	-98,544
ONS 2006-based			-28,500	-51,986	-47,144
ONS 2008-based				-63,386	-64,744
ONS 2010-based				-51,869	-32,661
ONS interim 2011-based				0	7,734

Population projection	Projected Greater Manchester population by selected years				
	1996	2001	2006	2011	2013
ONS 2012-based					1,500

Conclusion

5.35 The above examples clearly show the uncertainties associated with projections and forecasts, and the fact that none can be guaranteed to provide an accurate estimate of future change irrespective of who produces them. The fact that those uncertainties generally increase over longer time periods is a particularly challenge for a plan such as the Greater Manchester Spatial Framework that extends over two decades.

5.36 This highlights the need to consider different scenarios and avoid simply taking projections and forecasts at face value. It is important to assess whether the outputs appear realistic and deliverable, particularly having regard to what is known to have happened in the past, and to consider the implications of their view of the future being realised, as well as the variables that could lead to a different future.

6. Objectively assessed need and demand for employment floorspace

National guidance

6.1 The National Planning Policy Framework provides no guidance on the identification of future employment floorspace needs. Its most relevant statements are that "significant weight should be placed on the need to support economic growth through the planning system", and "local planning authorities should plan proactively to meet the development needs of business and support an economy fit for the 21st century"[83].

6.2 The Planning Practice Guidance (PPG) offers some advice on the topic, but this is much more limited than that provided for housing. The PPG states that:

"Plan makers should consider forecasts of quantitative and qualitative need (i.e. the number of units and amount of floorspace for other uses needed) but also its particular characteristics (eg footprint of economic uses and proximity to infrastructure). The key output is an estimate of the scale of future needs, broken down by economic sectors.

Local authorities should develop an idea of future needs based on a range of data which is current and robust. Authorities will need to take account of business cycles and make use of forecasts and surveys to assess employment land requirements.

Emerging sectors that are well suited to the area being covered by the analysis should be encouraged where possible. Market segments should be identified within the employment property market so that need can be identified for the type of employment land advocated.

The available stock of land should be compared with the particular requirements of the area so that 'gaps' in local employment land provision can be identified

Plan makers should consider:

- sectoral and employment forecasts and projections (labour demand);
- demographically derived assessments of future employment needs (labour supply techniques);
- analyses based on the past take-up of employment land and property and/or future property market requirements;
- consultation with relevant organisations, studies of business trends, and monitoring of business, economic and employment statistics." (paragraph 2a-032-20140306)

[83] Department for Communities and Local Government (March 2012), *National Planning Policy Framework*, paragraphs 19 and 20

Employment forecasts

6.3 The 2013 GMFM provides estimates of past employment levels and forecasts of future employment levels (workplace-based employment, rather than resident employment), which are shown in the table below for selected years. These figures include both employees and the self-employed. The figures for 2004 and 2012 are based on the Annual Business Inquiry (ABI) and the Business Register and Employment Survey (BRES) respectively. As is discussed in the next chapter on housing, the 2013 GMFM forecast of population growth in Greater Manchester over the period 2012-2033 is lower than that identified in the ONS 2012-based subnational population projections. Consequently, an additional scenario has been run through the 2013 GMFM to provide a broad indication of the potential impact of that higher population growth on employment.

	Number of jobs			% change (past)	% change (forecast)	% change
	2004	2012	2033	2004-2012	2012-2033	2004-2033
Greater Manchester (GMFM baseline)	1,325,889	1,300,818	1,468,898	-1.89	12.92	10.79
Greater Manchester (GMFM scenario with higher population growth)	1,325,889	1,300,818	1,496,316	-1.89	15.03	12.85
Liverpool LEP	652,930	650,510	700,312	-0.37	7.66	7.26
Cheshire and Warrington LEP	468,370	499,040	554,021	6.55	11.02	18.29
Lancashire LEP	699,189	678,308	735,469	-2.99	8.43	5.19
Cumbria LEP	264,317	266,990	267,914	1.01	0.35	1.36
North West	3,407,074	3,413,960	3,728,589	0.20	9.22	9.44
United Kingdom	30,909,500	32,095,000	35,676,210	3.84	11.16	15.42

6.4 In the 2013 GMFM baseline forecast, the proportionate growth in employment in Greater Manchester is slightly above that forecast for the United Kingdom as a whole over the period 2012-2033, and is the highest of the sub-regions within the North West. However, Greater Manchester saw a slight decline in employment over the period 2004-2012, whereas there was a small increase across the United Kingdom and a more significant rise in the Cheshire and Warrington LEP area. The forecast rate of growth in Greater Manchester may therefore partly relate to making up lost ground, as indicated by the proportionate growth figures for the period 2004-2033.

6.5 The GMFM scenario based on the higher ONS 2012-based population projection for Greater Manchester further increases the gap between Greater Manchester and the aforementioned comparator areas for the period 2012-2033. The forecast employment growth for Greater Manchester is 3.87 percentage points above the UK average in this scenario, which could be considered quite ambitious over a 21-year period.

6.6 The next table compares the GMFM baseline forecast and higher population growth scenario with two other independent forecasts from Experian (June 2014) and Cambridge Econometrics (November 2013). An end date of 2031 is used here rather than 2033 as that is the last year for which all of the forecasts are available. The Cambridge Econometrics forecast shows much lower employment growth, both in terms of the estimate of past change for the period 2004-2012 and the forecast for 2012-2031. The Experian and 2013 GMFM suggest similar levels of past change, but the former forecasts much higher employment growth over the period 2012-2033 than both the baseline and higher population growth scenario from the 2013 GMFM. This equates to a 20.22% increase in employment in the Experian forecast, which appears very high both in the context of the other forecasts and the 2013 GMFM forecast for the United Kingdom (which is 10.51% for the period 2012-2031). The Experian forecast of the rate of growth in employment in Greater Manchester over the longer period 2004-2033 is similar to the 2013 GMFM forecast for the Cheshire and Warrington LEP area identified above, but this is again considerably above the 2013 GMFM forecast for the UK.

	Total employment (jobs based)			Change 2004-2012		Change 2012-2031		Change 2004-2031	
Forecast	2004	2012	2031	2004-2012	% change	2012-2031	% change	2009-2031	% change
2013 GMFM	1,325,889	1,300,818	1,459,325	-25,071	-1.89	158,507	12.19	133,436	10.06
2013 GMFM higher population growth	1,325,889	1,300,818	1,479,966	-25,071	-1.89	179,148	13.77	154,077	11.62
Cambridge Econometrics	1,320,063	1,310,431	1,424,420	-9,632	-0.73	113,989	8.70	104,357	7.91
Experian	1,323,458	1,301,240	1,564,334	-22,218	-1.68	263,094	20.22	240,876	18.20

6.7 There is no real basis on which to judge one forecast more appropriate than another, and the differences between them will be partly due to the input data but primarily a result of alternative assumptions regarding the trajectory of variables and the precise relationship between them. However, it is notable that the 2013 GMFM provides a reasonably 'central' forecast in this context.

Question 10: Do you think that the 2013 GMFM scenario based on the ONS 2012-based subnational population projection for Greater Manchester (referred to in the tables above as '2013 GMFM higher population growth') provides a reasonable basis on which to plan? If not, what forecast do you think should be used and why?

Employment floorspace forecasts

6.8 The 2013 GMFM provides forecasts of the changes in the quantity of industrial, warehousing and office floorspace. It does this by forecasting job numbers in different economic sectors for each year, estimating the proportion of the jobs in each sector that will require different types of floorspace, and then using standard job densities to translate this into the amount of industrial, warehousing and office floorspace required to accommodate the forecast

number of jobs. The differences between years provide an indication of the net change in floorspace, taking into account both gains and losses. It should be recognised that the identification of floorspace equivalents is not an exact science, as the classification of economic activities does not always lend itself to a straightforward allocation to use classes and the relationship between jobs and floorspace can be a complex one.

6.9 The first stage of the module's approach to identifying total occupied floorspace is to allocate employment sectors to use classes. The module subdivides the GMFM's detailed sector full-time equivalent employment figures to offices (use classes B1a/b), industry (B1c/B2) or warehousing (B8) sectors (with many jobs being unallocated as they are not within those use classes). This allocation of jobs has been informed by a detailed review of the various SIC codes and Oxford Economics' knowledge of the Greater Manchester economy. For example, 60% of jobs attributed to SIC (standard industrial classification) codes 36-39 (water supply, sewerage, waste management and remediation activities) are allocated to industry in order to pick up jobs associated with waste treatment activities. The proportion used is based on the employee share identified in BRES by detailed SIC code. For telecommunications (SIC code 78), it is assumed that 80% of jobs are housed within warehouse accommodation, whilst a further 20% are located within offices, reflecting the diverse nature of this sector. The module then goes further to subdivide the various jobs attributed to office uses into a number of specific office types (e.g. small business units, general offices, serviced business centres and call centres).

6.10 The module then applies standard job densities to the detailed sub-division of jobs in order to identify an equivalent amount of floorspace that these jobs would require (for example a job density of 36m^2 gross internal area per full-time equivalent is used for industry, 67m^2 for warehousing, and a range of office densities are used dependent on the specific office type such as 14m^2 for general offices). The densities used are largely informed by a Homes and Communities Agency guide[84].

6.11 The table below summarises these outputs of the 2013 GMFM, and also the results of applying the same methodology to the employment forecasts from the higher population growth scenario. The figures relate to the amount of occupied floorspace, and make no allowance for vacancies or possible underutilisation of space. A second table shows the number of full-time equivalent jobs that are assigned to each type of floorspace.

	Estimated occupied floorspace in Greater Manchester (square metres)			Change in occupied floorspace (square metres)			
				2004-2012		2012-2033	
	2004	2012	2033	Total change	Per annum	Total change	Per annum
Offices							
Baseline	3,372,713	3,786,436	4,876,999	413,723	51,715	1,090,563	51,932
Higher population	3,372,713	3,786,436	4,964,490	413,723	51,715	1,178,054	56,098

[84] Homes and Communities Agency (2010), *Employment Densities Guide: 2nd Edition*

	Estimated occupied floorspace in Greater Manchester (square metres)			Change in occupied floorspace (square metres)			
				2004-2012		2012-2033	
	2004	2012	2033	Total change	Per annum	Total change	Per annum
Industry							
Baseline	5,790,447	4,146,527	3,364,479	-1,643,920	-205,490	-782,048	-37,240
Higher population	5,790,447	4,146,527	3,426,069	-1,643,920	-205,490	-720,458	-34,308
Warehousing							
Baseline	5,303,917	5,248,887	5,669,579	-55,030	-6,879	420,692	20,033
Higher population	5,303,917	5,248,887	5,775,792	-55,030	-6,879	526,905	25,091

	Estimated/forecast full-time equivalent jobs assigned to each type of floorspace in Greater Manchester (square metres)			Change in number of jobs			
				2004-2012		2012-2033	
	2004	2012	2033	Total change	Per annum	Total change	Per annum
Offices							
Baseline	228,532	254,619	327,506	26,087	3,261	72,887	3,471
Higher population	228,532	254,619	333,391	26,087	3,261	78,772	3,751
Industry							
Baseline	160,846	115,181	93,458	-45,665	-5,708	-21,723	-1,034
Higher population	160,846	115,181	95,169	-45,665	-5,708	-20,012	-953
Warehousing							
Baseline	79,163	78,342	84,621	-821	-103	6,279	299
Higher population	79,163	78,342	86,206	-821	-103	7,864	374

6.12 The baseline forecast rate of increase in occupied office floorspace for the period 2012-2033 is almost identical to that estimated to have taken place over the period 2004-2012 (the period 2004-2012 is being used as that is the same period for which floorspace completion data is available, as set out in the next subsection). In contrast, a reasonably significant net increase in occupied warehousing floorspace is forecast for 2012-2033 compared to a slight decline in the preceding eight years, and the rate of decline in occupied industrial floorspace is forecast to reduce significantly. In terms of occupied industrial floorspace, it would be unrealistic for the 2004-2012 rate of decline to have continued through to 2033 as this would have resulted in there being no such floorspace left.

6.13 The scenario based on a higher level of population growth as forecast in the ONS 2012-based population projections can be seen to have an impact on all three sectors, leading to higher forecast growth in office and warehousing floorspace and a lower reduction in industrial floorspace.

6.14 The above figures are forecasts of the net change in occupied floorspace. However, the future employment land/floorspace requirements for districts are

normally expressed as gross additions, partly because local authorities generally do not consistently monitor losses of employment floorspace. There is no simple way of translating these forecasts of net change into requirements for the amount of new floorspace that actually needs to be built. Nevertheless, they provide a useful indication of the likely relative demand for floorspace over time.

Past completions

6.15 The table below sets out the past employment floorspace development rates within Greater Manchester for the period 2004-2012, split by offices and industry/ warehousing. The impacts of the recession can clearly be seen, although it appears that these impacted on office completions around 12 months later than they did on industrial and warehousing completions (2010-2012 for offices rather than 2009-2011 in the case of industry and warehousing).

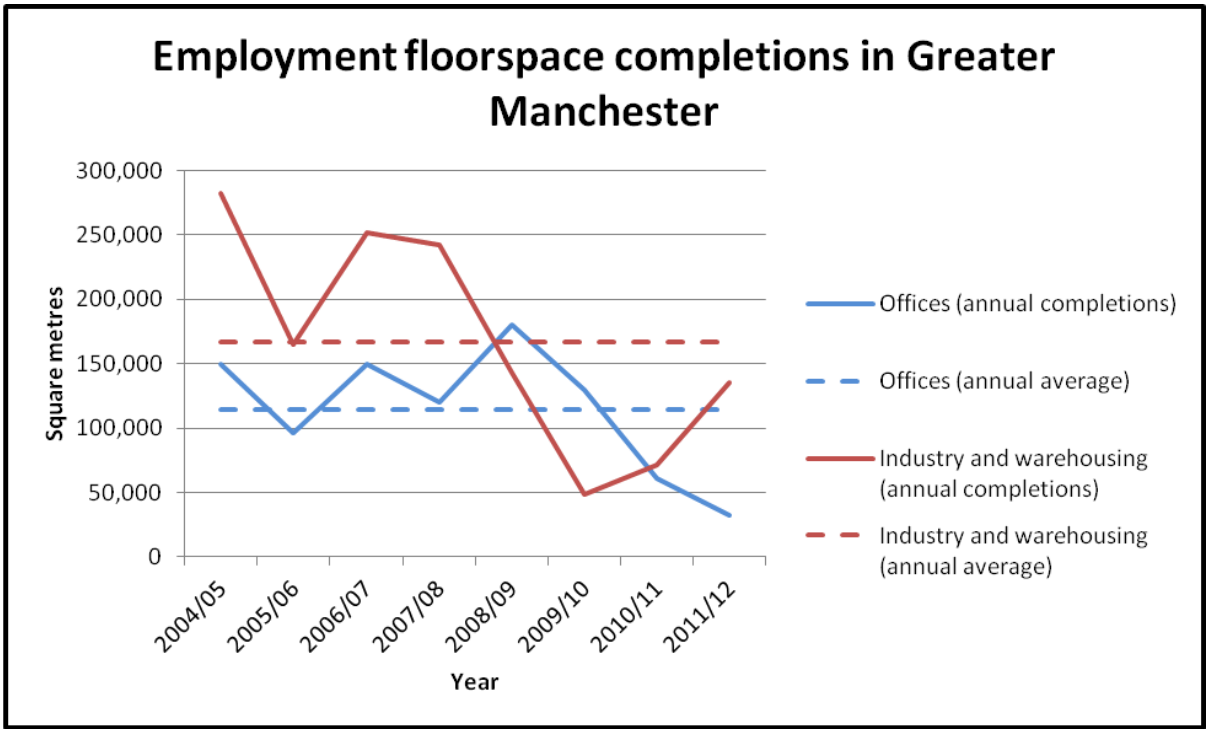
	Gross completed floorspace in Greater Manchester (square metres)			
	Offices		Industry and warehousing	
Year	Completed floorspace	% of 2004-2012 average	Completed floorspace	% of 2004-2012 average
2004/05	149,817	131	281,839	168
2005/06	96,111	84	165,247	99
2006/07	149,666	130	251,289	150
2007/08	120,063	105	241,799	145
2008/09	180,070	157	142,740	85
2009/10	129,390	113	48,699	29
2010/11	60,591	53	71,656	43
2011/12	32,254	28	135,150	81
Total 2004-2012	917,962		1,338,419	
Average per annum	114,745		167,302	

6.16 If the gross employment floorspace requirements for Greater Manchester over the period 2012-2033 were based solely on a continuation of these past development rates then this would result in the following figures:

- 2,409,650m^2 of new office floorspace
- 3,513,350m^2 of new industrial and warehousing floorspace

6.17 Such an approach would only be suitable if past development rates over the period 2004-2012 were considered to be broadly representative of typical and appropriate levels of demand across Greater Manchester for new employment floorspace. This is very difficult to gauge in practice. The period 2004-2012 included a very significant peak in the market, but also one of the most severe recessions on record. Individual years are also skewed to some extent by the

completion of major schemes, for example with Spinningfields in Manchester leading to high office completions in 2008/9 and the BBC development at MediaCityUK having a similar impact the following year, offsetting the effects of the recession to some extent. There is insufficient evidence to conclude whether this makes the past completions unrepresentative, and this may to some extent depend on the continuing roles of the City Centre and Salford Quays and their capacity to consistently attract developments of a similar scale in the future. This picture is reflected in the variance in the annual completion rates, as shown in the graph below.



6.18 The period 2012-2033 is likely to have both high growth and recessionary periods, but whether they will offset each other to result in similar average development rates to those seen in 2004-2012 is impossible to determine.

6.19 The earlier table on past and forecast employment numbers from the 2013 GMFM indicated that Greater Manchester saw a 1.89% reduction in employment over the period 2004-2012 compared to a 0.20% growth across the North West and 3.84% growth across the UK. The difference between Greater Manchester and the UK could be due to the dominant position of London and the South East in the national economy, and the decline in employment could also reflect the differential impact of the economy on particular sectors. However, it is also possible that development activity may have been dampened to some extent by this reduction in employment, although equally it could have had an impact on vacancies within the existing stock.

Land values

6.20 The table below sets out information from the Valuation Office Agency's Property Market Reports. These were discontinued in 2011, and the VOA is clear that they were "never designed or intended to provide representative land prices or to be used for policy making"[85]. The data below should therefore be treated with caution. Data is only available for industrial land, and not for office land.

	Industrial land values				
	Thousands of pounds per hectare			% change in land value	
	April 2001	January 2008	July 2009	April 2001 to January 2008	April 2001 to July 2009
Manchester	325	650	540	100.00	66.15
Bolton and Bury	275	550	450	100.00	63.64
Rochdale/Oldham	300	475	390	58.33	30.00
Salford/Trafford	330	825	650	150.00	96.97
Stockport	400	500	430	25.00	7.50
Wigan	225	400	320	77.78	42.22
Warrington	400	500	390	25.00	-2.50
Liverpool	220	275	240	25.00	9.09
NW and Merseyside	285	502	409	76.14	43.51
Yorkshire and the Humber	293	649	435	121.50	48.46
West Midlands	457	581	504	27.13	10.28
England and Wales (excluding London)	508	735	600	44.69	18.11

6.21 This information suggests that locations within Greater Manchester generally saw a significant increase in industrial land values from April 2001, both to the January 2008 peak and to July 2009 (which is the last date for which comparable information is available), particularly when compared to the national average outside London. However, the industrial land values within Greater Manchester remained below the national average (excluding London), with the exception of Salford/Trafford. The North West region as a whole appears to have had lower values than in other regions such as the West Midlands, and Yorkshire and the Humber, although parts of Greater Manchester have higher values.

6.22 Given the limitations of the data, it would be inappropriate to read too much into it. However, the considerable proportionate growth and relatively high absolute values in some parts of Greater Manchester, such as Salford/Trafford, could potentially indicate a shortage of supply, though not necessarily across the sub-region as a whole.

Rental values

[85] http://www.voa.gov.uk/dvs/propertyMarketReport.html - visited 14 May 2014

6.23 The table below compares industrial rental values in Manchester with those in other major competitor cities in the North and Midlands. The data is from the VOA Property Market Reports and so is somewhat dated and should be treated with caution. However, it indicates that Manchester saw relatively high industrial rent inflation in the period preceding the recession, although rental levels were still relatively low compared to Leeds and Birmingham.

Area[86]	Industrial unit rents (£ per square metre)		% increase (April 2001-July 2008)
	April 2001	July 2008	
Industrial units 150-200m^2			
Manchester	42	63	50
Liverpool	40	44	10
Leeds	60	68	13
Birmingham	62	70	13
Industrial units ~1,000m^2			
Manchester	39	55	41
Liverpool	30	37	23
Leeds	48	52	8
Birmingham	60	63	5

6.24 The following table provides similar VOA data for office suites, although comparative information is available up to the start of 2011 rather than just to mid 2008. Manchester rental levels were similar to Leeds and Birmingham in January 2011. However, the VOA data suggests that there had been significant inflation up to 2008, at which point the rental levels were higher than in the other sub-regions, but then rents fell back in the period to 2011.

	Office unit rents (£ per square metre) (self-contained 1,000m^2 suite)			% change	
	April 2001	July 2008	January 2011	April 2001 to July 2008	April 2001 to January 2011
Manchester	215	310	250	44.19	16.28
Liverpool	100	180	175	80.00	75.00
Leeds	220	230	240	4.55	9.09
Birmingham	275	280	260	1.82	-5.45

6.25 Other more recent market commentaries suggest that industrial rents in Manchester have grown since 2009, whereas they have generally been static in other major cities such as Leeds and Birmingham. Rent forecasts suggest lower future growth in Manchester compared to other cities, but this may reflect the limited capacity for further increases following recent growth rather than a comparative lack of demand.

6.26 Office rents appear to have broadly returned to their pre-recession peak in Manchester, in contrast to Leeds and Birmingham which have fallen behind

[86] The reports do not provide a clear spatial definition of each area.

Manchester and have still to fully reverse the reduced rent levels seen over the last few years.

Industrial and warehousing market analysis

6.27 A wide variety of market commentaries are published by property agents, and in combination with employment land reviews, discussions with developers and agents, and local authority knowledge on development activity, it is possible to draw some general conclusions as to the current state of the Greater Manchester industrial and warehousing market and how it might evolve over time.

6.28 Although the North West appears to have a very large supply of available floorspace, hardly any of this is of grade A quality, and market commentaries suggest it is the most constrained region in the country in this regard. Recent economic conditions may be responsible to some degree, impacting on the scale and type of development. Speculative development has generally dried up, and the emphasis instead appears now to be on design and build projects. This may partly explain the lack of available grade A floorspace, although the constrained position relative to other regions suggests that there are wider supply/demand issues that may be more acute in the North West.

6.29 There is some evidence that the rental gap and yields are closing between grade A and higher quality secondary accommodation, with a possible explanation being that the limited availability of grade A floorspace is driving up prices in the secondary stock. This message is further reinforced by the reduction or even withdrawal of tenant incentives, as the balance of power in rent negotiations moves from occupiers to landlords, probably due to the availability of supply in the right locations.

6.30 This constrained supply position is reflected across Greater Manchester, and may have contributed to recent rent increases within the sub-region. The employment land reviews of some individual districts, such as Bury and Salford, suggest that these may be longer term issues, with past development rates having been constrained by a lack of suitable sites, potentially pushing industrial and warehousing activity into other sub-regions.

6.31 There is a perception that Greater Manchester has missed out on some major potential investment opportunities because of a lack of large, readily developable sites in suitable locations, and an over-reliance on small sites in secondary locations, including existing premises. A regional or pan-regional investment can only locate in one sub-region, so it is inevitable that many locations will miss out, but it is potentially problematic that Greater Manchester has not always been in a position to compete for such investment.

6.32 One of the key messages in recent years in Greater Manchester has been that large, available sites tend to be developed quite quickly, even where they

may not meet all of the theoretically ideal characteristics for industrial and warehousing sites, although inevitably there are exceptions to this. This was particularly the case before the recession, but there is increasing evidence that this trend is returning, with high levels of interest in sites such as Port Salford, Airport City, Cutacre (in Bolton/Salford) and Omega (outside Greater Manchester in nearby Warrington) increasing the risk of a shortage of major high profile sites in the medium term.

6.33 A common concern, particularly in employment land reviews, is the continued suitability of existing premises for industrial and warehousing occupiers. The location, size, quality and adaptability of buildings, limited plot sizes, complex land ownerships, access to the strategic highway network and proximity to housing are major constraints for many existing employment areas. Consequently, a high supply of second hand premises does not necessarily translate into an ability to meet occupier demand. The renewal of the industrial and warehousing stock, both in terms of the provision of new high quality floorspace and the release of some existing sites for redevelopment to other uses such as housing, will therefore be essential in maintaining Greater Manchester's competitiveness. However, the importance for many businesses of retaining a good supply of low cost premises in secondary locations should not be underestimated, and will also be vital to competitiveness.

6.34 The availability of investment capital for new development projects may grow not simply due to the economic recovery but also as investors increasingly become priced out of the London/South East area and look towards other locations such as Greater Manchester in search of higher yields. In order to take advantage of this opportunity, Greater Manchester will need to be able to offer high quality sites of sufficient size in locations with good transport connections, which are available, remediated, serviced and able to deliver new buildings within 12-18 months of development enquiries.

6.35 One of the difficulties is in predicting exactly what occupiers will require over the next two decades, and how changes in the industrial, warehousing and distribution sectors will influence this. Increasing globalisation, energy costs, innovations in logistics, changes in manufacturing practices, commodity prices, etc, will all influence the location and type of accommodation that may be required. Furthermore, demand is unlikely to be consistent, and there may be significant peaks and troughs in interest in certain types of sites which are not linked to prevailing economic conditions.

6.36 Rather than seeking to forecast precisely how this may manifest over a prolonged period, it may be more appropriate to focus on providing a range of sites that enable Greater Manchester to respond flexibly to the investment opportunities that present themselves. A built environment that is able to adapt to changing occupier needs should place the sub-region in a very strong position, but delivering this in practice and in a way that is sustainable and financially viable will be challenging. One of the key questions for Greater Manchester will be the extent to which it wants to attempt to attract regional and pan-regional activities in competition with other sub-regions, or whether it

sees its main focus as being to accommodate local and sub-regional functions.

Question 11: Do you think that Greater Manchester should be seeking to attract more regional and pan-regional employment and investment functions? If so, what type of activities do you think could be captured and where?

Question 12: Do you have any other industrial and warehousing market information that should be taken into account?

Greater Manchester logistics study

6.37 A Greater Manchester logistics study has been commissioned and will be published at the end of September[87]

6.38 The study's analysis of the potential for increasing Greater Manchester's logistics role is particularly relevant to the Greater Manchester Spatial Framework. It identifies the potential for sites in Greater Manchester to compete for national distribution centres, but only if they are very large and have rail and/or water connections, otherwise their role is limited to regional distribution centres or more local facilities. The potential of existing warehousing sites is much more limited, as they are often too small and are unlikely to have rail or water connections. Consequently, the opportunities for increasing Greater Manchester's logistics role depend very much on the availability of suitable sites of sufficient size and with multi-modal potential.

6.39 The logistics study sets out two scenarios for expanding Greater Manchester's logistics role, which are described as follows:

- **Moderate Growth Scenario:** the North West is able to accommodate organic growth in the regional market for logistics space and secure 10% of the East and West Midlands market up to 2033 by capturing some of the requirement for national distribution centres (NDCs) through offering immediate access to rail and water connected sites. Greater Manchester is assumed able to accommodate its current share of space within the North-West (38%) using some recycled land on existing distribution parks (50% of the total requirement) and finding sufficient land for a new tri-modal site and strategic rail freight interchanges (SRFIs) for the remaining 50%.
- **High Growth Scenario:** the North West as a whole is able to accommodate organic growth in the regional market and secure a higher share (15% rather than 10%) of the East and West Midlands market up to 2033 by capturing 15% of the requirement for NDCs rather than the 10% assumed in the Moderate Growth Scenario. Greater Manchester accommodates the same share of the North West market (i.e. 38%), but is only able to locate 25% of additional capacity on existing distribution parks, while being able to find sufficient land for a new tri-modal site and rail-connected sites for the remaining 75%.

[87] The study will be published on the AGMA/GMCA website once it is formally approved by the GMCA.

6.40 In this context, it is worth noting that 'moderate growth' is effectively a moderate increase compared to maintaining the current position of the North West and Greater Manchester, rather than a moderate overall level of logistics activity.

6.41 The study assumes throughout that Greater Manchester's share of the North West's logistics activity remains constant at 38%. It estimates that there will be a need to replace 4,270,000m^2 of logistics floorspace across the North West region over the period 2013-2033, and a further 610,000m^2 of floorspace will be required to accommodate market growth. This effectively gives a baseline position of needing 4,880,000m^2 of new logistics floorspace, with Greater Manchester's share being 1,854,400m^2.

6.42 By capturing some of the Midlands market, the study considers that the North West could attract an additional 620,000m^2 of new logistics floorspace compared to the above position under the moderate growth scenario, and an extra 920,000m^2 under the high growth scenario. Again assuming a 38% share of the regional total, Greater Manchester could therefore potentially attract an additional 235,600m^2 under the moderate growth scenario, and 349,600m^2 under the high growth scenario. In total, this would point towards 2,090,000m^2 of new logistics floorspace in Greater Manchester over the period 2013-2033 under the moderate growth scenario, and 2,204,000m^2 under the high growth scenario.

6.43 These figures are summarised below.

Scenario	New logistics floorspace in Greater Manchester 2013-2033 (square metres)	Extra logistics growth that could potentially be sought (square metres)
Replacement provision and forecast market growth	1,854,400	0
Moderate growth	2,090,000	235,600
High growth	2,204,000	349,600

Office market analysis

6.44 As with industry and warehousing, it is possible to draw some general conclusions on the office market from the various market commentaries, employment land reviews, discussions with developers and agents, and local authority knowledge.

6.45 There is a general perception that Manchester (including Salford Quays and South Manchester, as well as the City Centre) has the strongest office market of all regional cities in England, and this is reflected in current and forecast prime rents. However, other cities such as Liverpool and Birmingham are investing in infrastructure to improve their market standing, and so place competition within the office market is likely to increase. This means that Manchester is in a good position to secure further investment in new office floorspace, but it will need to be constantly enhancing its relative

attractiveness in order to consolidate rather than lose its primary status outside London, with Leeds and Birmingham probably in the best position to challenge it. This will not just require the provision of high quality floorspace in locations attractive to the market, but also improvements to the working and living environment, facilities, transport and labour supply.

6.46 London has seen an influx of foreign investment in recent years, with further inflows predicted, helping to increase familiarity with the UK market. It seems likely that some investors may become increasingly priced out of the London office market and/or will seek higher yields, with the yield gap between London and the regions at record levels. Manchester would appear to be in a very good position to capture such investment. However, it will be in competition not just with other locations in England, such as Leeds and Birmingham, but also with regional cities across Europe. Therefore, although there may be significant potential for supporting increased delivery of new office floorspace, this is in no way guaranteed and will be dependent on how competitive Manchester is perceived to be. There will also need to be genuine demand from occupiers as well as from potential investors if any significant increase in investment is to be maintained in the long-term.

6.47 The availability of prime office space has been falling in all of the main UK regional office markets, with increasing concerns about the ability to meet the needs of a growing economy. This has been particularly apparent in the supply of grade A floorspace, as a result of very limited new build stock, which may reflect the impact of economic conditions on investment decisions as much as actual levels of demand. This has led to a reduction in incentives from landlords, and within Manchester may have contributed to stronger recent rental performance than in some other major cities. However, it is important to note that within Greater Manchester there is no shortage of potential office sites in good locations, many with extant planning permission, and so there is an ability to rapidly increase the supply of grade A office floorspace given the right market conditions, and site availability is unlikely to be a cause of the current constrained grade A floorspace supply.

6.48 The lack of new grade A floorspace has placed an increased focus on grade B stock, leading to newly refurbished buildings coming onto the market. Grade B floorspace has consequently constituted a significant proportion of office take-up in recent months. This may be partly driven by occupiers seeking better value, but could also reflect the overall availability of quality floorspace in an appropriate location, and the reluctance of developers to bring forward new-build office developments without guaranteed pre-lets. However, second hand floorspace has constituted a particularly high proportion of recent take-up in Manchester compared to other major cities, despite some availability of new floorspace, and there remains a large amount of available second hand floorspace reflecting the overall size of the sub-region's office market. Depending on the quality and location of that second hand stock, and the level of interest in converting it to other uses such as apartments, this could potentially impact on the speed with which new office floorspace comes forward, although it is possible that the better second hand premises have already been refurbished and re-let. Nevertheless, the overall picture in

Manchester is one of a constrained supply of grade A floorspace that could impact on the ability to attract and retain businesses.

6.49 The majority of new development requires significant pre-lets before commencing, although some speculative development does appear to be taking place. However, there are suggestions that investors are amending their risk profiles, which could promote more speculative development and consequently improve the availability of grade A floorspace.

6.50 Prime office rents in Manchester are expected to gradually increase over the next few years, continuing to exceed other regional cities in England. However, the demand for grade B floorspace could suggest that although high prime rents may indicate a strong Manchester office market, it may not be possible to sustain any considerable growth in rental levels if there is to be sufficient occupier demand to support a significant increase in new office development. Although the last European Cities Monitor from 2011 indicated that Manchester was seen as providing better value for money in terms of office space than London, it was behind both Leeds and Birmingham which could impact on the ability for rental growth without affecting demand and competitiveness [88].

6.51 Many businesses have been rationalising their space to reduce costs, and such pressures are likely to continue. There has also been some reduction in productivity levels during the recession, which could mean that increased investment and business results in more productive use of existing staff rather than an increased demand for staff and consequently office floorspace. However, there are also increasing moves towards providing modern workplaces that help to attract and retain staff, which could increase both the quality and quantity of space requirements. Latest forecasts suggest that technology, media and telecommunications are likely to become increasingly significant in office growth, with more modest increases in financial services. However, the sectoral profile of demand can change quite rapidly, and it would seem more appropriate for Greater Manchester to seek to provide a diverse office offer that can attract all sectors rather than focus on particular sectors that currently appear to have high demand. One of the strengths of the Manchester market is its ability to cater for a variety of needs, and this should be reinforced in the future.

6.52 Overall, therefore, Greater Manchester appears to be in a strong position in terms of the office market. With appropriate investment, it should be possible not only to continue this, but to further enhance this prominence. However, the achievement of significantly increased levels of new office floorspace compared to past development rates will be dependent on the ability to find a way of delivering a high quality product at a value that both attracts investment in search of higher yields than are available in London and also promotes major growth in occupier demand. Furthermore, maintaining and enhancing Greater Manchester's competitiveness as an office location will not just depend on the availability of high quality sites and floorspace, but will also

[88] Cushman and Wakefield (2011), *European Cities Monitor 2011*, p.15

be heavily influenced by factors such as the availability of skilled workers, the quality and reliability of internal and external transport links, provision of high quality telecommunications, good place marketing, and good places to market.

Question 13: Do you have any other office market information that should be taken into account?

Competitiveness and opportunities

6.53 In determining the scale of employment development that should be planned for in Greater Manchester, it is appropriate to consider whether the sub-region has specific competitive advantages/disadvantages that could impact on growth, and if there are particular opportunities that should be exploited. This will help to identify whether Greater Manchester should be aspiring for higher levels of employment development than in the past, or if even meeting past development rates could be very challenging.

6.54 Competition for business and investment will continue to increase, both at a national and international level. Consequently, Greater Manchester will need to have a diverse, high quality range of sites in order to continue to secure employment development at levels similar to in the past. If it wishes to deliver significantly higher levels of growth then it will be necessary to have sites and other attributes that differentiate Greater Manchester from its competitors, and simply providing more of the same is unlikely to have any significant impact on development rates and could actually see those rates reduce as business demands evolve and place competition increases.

6.55 In this regard, it is considered that Greater Manchester has seven key attributes/opportunities that could help to boost its long-term competitiveness, and secure higher levels of employment development. These are focused around characteristics that are able to separate Greater Manchester in the eyes of potential investors, and could therefore result in higher levels of development than might otherwise be expected if they can be sustainably exploited.

1) Scale

6.56 Greater Manchester has a population of 2.6 million and is the largest functional economic area in the United Kingdom outside London, generating almost a fifth of the total economic output of the North of England[89]. It also has the largest travel-to-work area of any conurbation outside London, with 5.2 million people within an hour's commute of the conurbation core[90]. Overall, Greater Manchester is seen to benefit from agglomeration economies that have created a critical mass of skilled, knowledge-based jobs, and this

[89] Manchester's Commission for the New Economy (January 2011), *Greater Manchester Local Economic Assessment: Summary & Conclusions,* paragraphs 1.1 and 3.1
[90] Ibid, paragraphs 3.1 and 3.3

will become increasingly important for future economic growth[91]. In other words, the size of Greater Manchester is seen to be one of its key attributes in terms of economic competitiveness.

2) Manchester City Centre

6.57 Greater Manchester's economic growth has been driven by the large scale and rapid expansion of the service sector, particularly financial and professional services. This sector accounts for a sixth of employment, a fifth of GVA and businesses, and contributed 45% of all GVA growth across Greater Manchester over the decade prior to the recession, rising even higher in the conurbation core, making the conurbation a centre for financial and professional services of national, not just regional significance[92]. Outside London, Manchester is the UK's main centre of financial and professional services, employing over 190,000 people and generating £9 billion per year of GVA[93].

6.58 As discussed in the market analysis section above, Manchester is generally acknowledged as having the strongest office market in the country outside London. The existing scale of activity and profile of the city centre provide a robust basis on which to secure future investment, exploiting and reinforcing its pre-eminent position. The large number of sites available for office development within the city centre, many of which are close to major public transport facilities, provides a combination of location, scale, quality of development opportunity and access to a large pool of skilled labour that other sub-regional centres may struggle to match.

3) Digital and creative industries

6.59 The Greater Manchester Local Economic Assessment explains that Greater Manchester has "developed its creative & digital industries to the stage where they represent the UK's biggest centre for the industries outside the Greater Southeast. This specialisation is forecast to increase over the coming decade as MediaCity and other assets develop and agglomeration economies increase."[94] The Greater Manchester Strategy also notes the importance of these sectors, with MediaCityUK acting as a national hub for digital and creative industries[95] and having major occupiers such as the BBC and ITV. The Sharp Project[96], which recently won the Government's Enterprising

[91] Ibid, paragraphs 3.3 and 8.14
[92] Manchester's Commission for the New Economy (January 2011), *Greater Manchester Local Economic Assessment: Summary & Conclusions,* paragraphs 4.1
[93] Greater Manchester Combined Authority and the Association of Greater Manchester Authorities (December 2013), *Stronger Together: Greater Manchester Strategy 2013*, p.25
[94] Manchester's Commission for the New Economy (January 2011), *Greater Manchester Local Economic Assessment: Summary & Conclusions,* paragraphs 4.2
[95] Greater Manchester Combined Authority and the Association of Greater Manchester Authorities (December 2013), *Stronger Together: Greater Manchester Strategy 2013*, p.6
[96] The Sharp Project is a multi-million pound investment by Manchester City Council, Northwest Regional Development Agency (NWDA) and the European Regional Development Fund (ERDF) specifically aimed at expanding creative and digital sectors in order to create job and career opportunities in the area. It offers affordable, flexible office space for rent to companies which will offer

Britain Award, further enhances the sub-region's competitiveness in such activities.

6.60 Overall, the Greater Manchester Strategy identifies that the sub-region's creative and digital sector accounts for 105,000 jobs creating GVA of £4.7 billion each year, with national growth opportunities at MediaCityUK and the Sharp Project. This provides a strong basis on which to secure further expansion of sectors that are likely to be fundamental to driving economic growth over the next few decades, as well as helping to raise the profile and image of Greater Manchester.

4) Universities and the knowledge economy

6.61 The Local Economic Assessment identifies that the size, strength and importance of Greater Manchester's universities mean that Higher Education is another key service specialism for the conurbation. It highlights that the Corridor Manchester, focused around Oxford Road in Manchester, comprises Europe's largest concentration of knowledge assets, including Universities, hospitals, and Manchester Science Park[97]. Education employs 105,000 people and adds GVA of £3.0 billion per year to the city. The city's five universities have over 100,000 students, the largest concentration of students in Europe. The discovery of Graphene at the University of Manchester is a global growth opportunity[98].

6.62 This combination of knowledge assets has the potential to make a major contribution to Greater Manchester's economic growth and competitive position. However, part of the challenge will be to provide the type of jobs and environment that can help to retain graduates, and reduce the outflow of knowledge to London.

5) Manchester Airport and Airport City

6.63 Manchester Airport is the country's foremost international air facility outside London. In 2013, it was the third busiest airport in the UK and the 21st busiest in Europe, with 20.75 million passengers[99]. The airport provides direct employment for 19,000 people and has an estimated annual £1.7 billion impact on the UK economy. It will continue to act as a major driver of future growth, both directly through the Airport City Enterprise Zone and through the development of new trade routes in support of Greater Manchester's target export markets[100].

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complementary or additional services that will allow creative companies to develop their skills and support their businesses to grow.

[97] Manchester's Commission for the New Economy (January 2011), *Greater Manchester Local Economic Assessment: Summary & Conclusions,* paragraphs 7.1 and 4.3

[98] Greater Manchester Combined Authority and the Association of Greater Manchester Authorities (December 2013), *Stronger Together: Greater Manchester Strategy 2013*, p.25

[99] UK Annual Airport Statistics – Civil Aviation Authority

[100] Greater Manchester Combined Authority and the Association of Greater Manchester Authorities (December 2013), *Stronger Together: Greater Manchester Strategy 2013*, p.35

6.64 The presence of such a major airport providing a wide range of international connections offers a competitive advantage that other sub-regions in the UK outside London cannot match, and also puts Greater Manchester in a positive position internationally. This should help Greater Manchester to compete for future investment.

6) Port Salford and the Manchester Ship Canal

6.65 The Manchester Ship Canal is a unique infrastructure asset, offering direct shipping links to a deep sea container port (at Liverpool) from an inland conurbation, and the proposed development of Port Salford will provide a nationally important logistics facility for Greater Manchester offering genuine multi-modal opportunities close to some of the country's largest markets. One of the challenges will be how best to maximise the benefits of Port Salford for the sub-region, both in terms of accommodating further logistics development and helping to attract investment in other sectors.

6.66 The recent Greater Manchester logistics study specifically refers to Greater Manchester's "unique selling point at a national level: the availability of a site at Port Salford for a tri-modal distribution park on the Manchester Ship Canal with a barge service to a deep water container port at Liverpool"[101].

A Connected North

6.67 Greater Manchester has a population of 2.6 million and is the largest functional economic area in the United Kingdom outside London, generating almost a fifth of the total economic output of the North of England[102]. It also has the largest travel-to-work area of any conurbation outside London, with 5.2 million people within an hour's commute of the conurbation core[103]. Overall, Greater Manchester is seen to benefit from agglomeration economies that have created a critical mass of skilled, knowledge-based jobs, and this will become increasingly important for future economic growth[104].

6.68 Although we are located in close proximity to our city region neighbours, city region economies currently function largely in isolation from one another. Commuting between Manchester and Leeds City Regions, for example, is 40% lower than expected given the physical proximity of the two cities. East-West connectivity and the proposed High Speed 2 rail line from London (HS2) would be growth multipliers for the North and nationally, with each increasing the impact of the other. HS2 would lower barriers to trade between the North and the South; East-West connectivity would make the North a more productive and thus better trading partner, increasing the returns to the additional trade that HS2 would unlock.

[101] P.66 **Add full reference once published.**
[102] Manchester's Commission for the New Economy (January 2011), *Greater Manchester Local Economic Assessment: Summary & Conclusions,* paragraphs 1.1 and 3.1
[103] Ibid, paragraphs 3.1 and 3.3
[104] Ibid, paragraphs 3.3 and 8.14

6.69 It is estimated that the second phase of High Speed Rail, scheduled to extend to Greater Manchester by 2033, could offer a GVA boost of £1.2 billion per annum for the Northern economy, with the Manchester Piccadilly and the Airport stations poised to deliver massive growth and regeneration benefits for the wider area[105]. There is a strong evidence base which shows that there is the potential to create 30,000 net additional jobs in the immediate vicinity of Manchester Piccadilly station, and High Speed 2 offers further significant scope for jobs and productivity growth at Manchester Airport[106].

6.70 Greater Manchester will not be the only sub-region to benefit from High Speed 2, but when combined with its other attributes, the increase in the speed and capacity of connections to London and Birmingham will help to ensure that its competitiveness is maintained and enhanced, opening up major opportunities that otherwise may be delayed or unavailable. Although it is not anticipated to be completed until 2033, it could potentially promote higher levels of investment before that date.

Question 14: Do you agree that these are the key attributes/opportunities that could help to boost Greater Manchester's economic competitiveness? If not, what other key attributes/opportunities should be taken into account?

Employment forecasts and future floorspace requirements

6.71 There is no simple way of determining whether the continuation of past employment floorspace development rates would be consistent with accommodating forecast employment levels, or whether this would lead to an under or over supply of floorspace. It would be expected that past trends should be reflected in future forecasts, but this may not necessarily mean that the development rates from the period 2004-2012 would continue unchanged in the future.

6.72 The table in the 'employment floorspace forecast' section above showed that the 2013 GMFM forecasts of the net change per annum in occupied office floorspace over the period 2012-2033 will be virtually identical to that seen over the period 2004-2012. On that basis, assuming that the gross loss of existing office floorspace remains broadly constant, the continuation of past development rates could be considered consistent with the 2013 GMFM forecast. The higher employment growth seen in the GMFM scenario based on the higher ONS 2012-based population projection for Greater Manchester could therefore require further new office floorspace to be developed in addition to the continuation of past development rates.

6.73 The picture is less simple in relation to industry and warehousing. The 2013 GMFM forecasts that there will be moderate growth in the amount of occupied

[105] Greater Manchester Combined Authority and the Association of Greater Manchester Authorities (December 2013), *Stronger Together: Greater Manchester Strategy 2013*, p.35

[106] Greater Manchester Combined Authority, Greater Manchester Local Economic Partnership and the Association of Greater Manchester Authorities (March 2014), *A Plan for Growth and Reform in Greater Manchester*, p.12 and 32.

warehousing floorspace over the period 2012-2033, compared to a slight decline over the period 2004-2012. In terms of industrial floorspace, it forecasts that there will continue to be a significant overall decrease in occupied floorspace, but the rate of decline will reduce very considerably in the period up to 2033. Hence, the forecast for industry and warehousing floorspace appears more optimistic than the change over the period 2004-2012, although overall there is still a forecast reduction in the total amount of occupied industrial and warehousing floorspace. There is no way of determining whether this would be the result of higher levels of new floorspace provision than in the past, lower losses of existing floorspace, or a reduction in the vacancy rate of existing premises.

6.74 Given the lack of alternative data, it will be assumed that the continuation of past development rates would be consistent with accommodating the employment forecasts in the 2013 GMFM baseline forecast. Any additional jobs, such as those seen in the GMFM scenario based on the higher ONS 2012-based population projection for Greater Manchester, would result in the need for additional new employment floorspace. Similarly, any increase in development rates above past trends would be expected to lead to an increase in jobs, and the impact of this on labour demand and therefore potentially housing needs would need to be considered.

Question 15: Do you agree that it is appropriate to assume that the continuation of past development rates for both new office floorspace and new industrial and warehousing would be consistent with the 2013 GMFM baseline employment forecasts? If not, what assumption do you think should be made?

Methodology for identifying the impacts of additional floorspace

6.75 If consideration is to be given to whether there is potential to increase the provision of new employment floorspace above past development rates, then it is important to assess what impacts this could have on job numbers and whether this is realistic.

6.76 The first stage in estimating the number of additional jobs that may result from increasing the development of new floorspace above past rates is to make an allowance for vacancies in that new floorspace, since it is highly improbable that all of it would be occupied even in a very buoyant market. Previous studies at the Greater Manchester level have taken slightly different approaches to this issue. An assessment of demand for employment land published in 2006 suggested that the ideal vacancy rates were 5% for offices and 10% for industry and warehousing[107]. A more recent position statement on employment land stated that “10% is widely acknowledged to represent a standard vacancy rate in a healthy property market”[108].

[107] Arup (May 2006), *Demand for Employment Land in Greater Manchester: Final Report*, p.24
[108] Nathaniel Lichfield and Partners (2009), *Greater Manchester Employment Land Position Statement*, paragraph 4.21

6.77 Estimated vacancy rates in commercial and industrial property have been published by the Office for National Statistics based on Valuation Office Agency data, but these only extend to 2004/5. The table below sets out this data for Greater Manchester, which relates to the proportion of property units (hereditaments) rather than floorspace. The figures fluctuate quite considerably, but for the last year of 2004/5 they are generally just above or below 10%.

	Vacant property estimates hereditament percentage (April to March)						
	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Bolton	14%	12%	11%	13%	16%	11%	8%
Bury	7%	7%	7%	9%	9%	9%	8%
Manchester	21%	22%	22%	21%	16%	17%	18%
Oldham	8%	8%	8%	10%	9%	9%	9%
Rochdale	7%	8%	9%	8%	9%	10%	11%
Salford	11%	11%	12%	14%	14%	13%	12%
Stockport	15%	12%	12%	13%	13%	13%	13%
Tameside	8%	8%	8%	9%	10%	9%	8%
Trafford	7%	6%	6%	5%	6%	6%	10%
Wigan	6%	7%	7%	8%	8%	8%	9%

6.78 A number of market reports provide further evidence on office vacancies, but there is very limited information on industry and warehousing. For example, Costar reported in May 2013, based on research by Jones Lang LaSalle (JLL), that office vacancy rates across the main six regional markets had fallen "from 12.7% at the beginning of 2012 to just 12.2% in Q1 2013", with there being a "10-year average of 10.7%"[109]. In the same month, Places North West reported that Knight Frank had identified that the office vacancy rate in Manchester "had edged down to reach 11.2%" in March, which it suggested "compares favourably with other regional cities, some of which have vacancy rates of 12-16%"[110]. In January 2014, the Manchester Evening News reported that the Manchester Office Agency Forum had identified that vacancies in city centre offices had "reached a five-year low of 15.3 per cent of total space"[111]. However, in July 2014, Place North West reported, based on research by JLL, that vacancy rates in prime office stock in Manchester stood at less than 2%, which led JLL to conclude that development was inevitable over the next 12 months[112]. Consequently, construction may not have kept pace with demand for certain types of floorspace in some locations. It is also unclear whether vacancies are lower in new floorspace, for example because it is more suited to modern business needs, or higher, for example because of higher prices and delays in finding tenants.

[109] http://www.costar.co.uk/en/assets/news/2013/April/Regional-office-occupier-recovery-builds-momentum/
[110] http://www.placenorthwest.co.uk/news/archive/13511-q1-office-market-update-from-knight-frank.html
[111] http://www.placenorthwest.co.uk/news/archive/15186-moaf-manchester-office-take-up-880-000-sq-ft.html
[112] http://www.placenorthwest.co.uk/news/archive/16376-north-west-construction-starts-dip.html

6.79 Overall, a vacancy rate of 10% appears to provide a realistic estimate of vacancy rates in new office floorspace, particularly if past development rates are exceeded and the potential for an undersupply is therefore minimised. Evidence is more limited for industry and warehousing, but once more a 10% vacancy rate would seem appropriate.

Question 16: Do you agree that it is appropriate to assume an average 10% vacancy rate in new employment floorspace? If not, what figure do you think should be used, and why?

6.80 The next stage in the calculation is to estimate the number of full-time equivalent jobs that would result from that level of occupied floorspace. The Homes and Communities Agency (HCA) published a guide in 2010 on employment densities, which updated advice previously set out in an English Partnerships guide from 2001, and these guides have informed the translation of employment forecast into floorspace forecasts in the 2013 GMFM. The table below summarises the HCA figures for office floorspace, based on full-time equivalent jobs (FTE). The HCA guide provides figures based on the net internal floor area (NIA), but explains that the figures based on gross internal floor area (GIA) are typically 15-20% higher and this is reflected in the table, although it also identifies that for multi-tenanted buildings the range could be higher given the space allocated for shared or common areas.

Use class	Use type	Area per FTE (m^2) (NIA)	Comment on potential variation	Area per FTE (m^2) (GIA) (NIA + 15-20%)
B1a	General Office	12	Includes HQ, Admin and Client Facing Office types	13.8 – 14.4
B1a	Call centres	8		9.2 – 9.6
B1a	IT/Data Centres	47		54.1 – 56.4
B1a	Business Park	10	A blended rate of the above B1a uses where they are found in out of town business par locations.	11.5 – 12.0
B1a	Serviced office	10	Densities within separately let units are c.7sqm per workstation but 30% of a facilities total NIA for shared services reduces the overall density.	11.5 – 12.0

6.81 A variety of other studies have also been published, which indicate both higher and lower figures. For example, the British Council of Offices (BCO) identifies a density of 10.1m^2 per workplace (NIA) in the North of England[113], the Government targets for its own office space range from 8-10m^2 per person although actual utilisation is 13m^2 or above[114], and the office

[113] British Council of Offices (September 2013), *Occupier Density Study 2013*
[114] National Audit Office (March 2012), *Cabinet Office – Improving the efficiency of central government office property*

accommodation toolkit produced by GVA Grimley on behalf of the London Centre of Excellence refers back to some BCO research in concluding that "overall density will rarely exceed 10sqm per person – the typical standard for modern office space"[115]. However, these figures all relate to net internal area and workplace or worker. An increase of 17.5% would need to be added to translate net internal area to gross internal area (the middle of the 15-20% range identified by the HCA), and a further factor of around 1.14 to calculate the full-time equivalent[116], and so a figure of 10m^2 per workspace would equate to around 13.4m^2 per full-time equivalent.

6.82 In April 2010, 4NW and Roger Tym and Partners published a document for the North West that sought to provide a method for producing quantitative targets for the provision of employment land. In terms of offices, it recommended a default assumption of 16m^2 per worker (NIA), which is the equivalent of 18.8m^2 gross internal area (applying the HCA average of 17.5%) and 22.1m^2 on a full-time equivalent basis (dividing by 0.875). This conclusion is largely based on a study of Yorkshire and the Humber by Roger Tym on behalf of Yorkshire Forward, which identified an average of 15.7m^2 per worker net internal area[117].

6.83 The BCO report from 2013 referred to above also analysed Investment Property Databank data on densities over the period 2008-2012. This suggests that the rate of "increase in occupation densities has begun to slow as the market reaches a 'level' beyond which perhaps the benefits of increased efficiency diminish"[118].

6.84 Overall, there is significant disparity between the survey-based figures from the North of England published by Roger Tym and the assessments produced by other organisations such as the BCO and the National Audit Office. The former appear very high, but are more transparent in their derivation and seem to be informed by detailed analysis. Given the sources, some of the lower figures may be biased by larger occupiers, as suggested in the Roger Tym study for the North West, and may also reflect ideals rather than actualities. Consequently, given the range of figures involved, and the different types of office accommodation involved, the most appropriate approach may be to use the HCA guide's figure for general offices, with a 17.5% increase to translate it to gross internal area, and then rounded to the nearest whole number, giving a figure of 14m^2.

[115] http://www.londoncouncils.gov.uk/capitalambition/projects/officeaccommodationtoolkit/default.htm
[116] For the purposes of comparison, it has been assumed that 25.5% of total employees are working on a part-time basis (estimated from the BRES 2012 figures for the North West based on the following service sectors: 'information and communication', 'finance and insurance', 'real estate', 'professional, scientific and technical', 'administration and support', 'public administration and defence, compulsory social security'), and that part-time employees work 49.3% of the hours worked by full-time employees (estimated from the ASHE 2012 figures for the same sectors). This equates to the density per full-time equivalent being 87.1% of the density per worker.
[117] Roger Tym and Partners, for 4NW (April 2010), *Setting Employment Land Targets for North West England*
[118] British Council of Offices (September 2013), *Occupier Density Study 2013*, p.25-26

Question 17: Do you agree that it is appropriate to assume an average office job density of 14m^2 gross internal area per full-time equivalent employee? If not, what figure do you think should be used, and why?

6.85 The HCA guide also sets out typical job densities for industrial and warehousing floorspace, which is summarised below. The figures vary in terms of whether they are based on net internal area (NIA), gross internal area (GIA) or gross external area (GEA).

Use Class	Use Type	Area per FTE (sqm)	Floor area basis	Comment on potential variation
B2	General	36	GIA	Range of 18 – 60sqm
B1c	Light Industry (business park)	47	NIA	
B8	Warehouse and distribution (general)	70	GEA	Range of 25 – 115sqm. The higher the capital intensity of the business the lower the employment density. Wide variations exist arising from scale and storage direction.
B8	Warehouse and distribution (large scale and high bay warehousing)	80	GEA	

6.86 The Roger Tym report for the North West also looks at industrial and warehousing job densities, and again refers to detailed survey work that was undertaken for Yorkshire Forward. It observes that, unlike offices, there is no direct link between numbers of workers and the amount of space in industrial and warehousing sectors, with a wide variation in job densities reflecting the differing nature of activities and workforce management[119]. Nevertheless, it suggests that a number of small surveys have taken place in recent years and that "they are broadly consistent in suggesting the following broad ranges:

- Standard sheds, both manufacturing and warehouses: 40-50sqm
- Large Warehouses, probably over 10,000sqm: 80-100sqm"[120].

6.87 In terms of its own detailed survey work in Yorkshire and the Humber, it identified an average ratio of 67m^2 per worker, and concluded that there is "no conclusive evidence that the ratio varies between industry and warehousing for units of equal size"[121]. Based on an assessment of relative job densities between regions, using DCLG and Valuation Office Agency data, and in the absence of more detailed information for the North West, it recommends an average density of 61m^2 per worker for the region. Translating this into a full-time equivalent gives a figure around 59m^2 net internal area[122]. For industry

[119] Roger Tym and Partners, for 4NW (April 2010), *Setting Employment Land Targets for North West England*, p.28
[120] Ibid, p.26
[121] Ibid, p.28
[122] It has been assumed that 8.1% of total employees in industrial and warehousing sectors are working on a part-time basis (estimated from the BRES 2012 figures for the North West), and that part-time employees work 54.2% of the hours worked by full-time employees (estimated from the ASHE 2012 figures). This equates to the density per full-time equivalent being 96.2% of the density per worker.

and warehousing, gross internal areas are very similar to net internal areas, and so no further allowance has been made in this regard. Given that it is based on a detailed analysis for the region, and is broadly similar to the figures in the HCA guide, it is considered appropriate to use this average job density for industry and warehousing of 59m^2 per full-time equivalent worker.

Question 18: Do you agree that it is appropriate to assume an average industrial and warehousing job density of 59m^2 gross internal area per full-time equivalent employee? If not, what figure do you think should be used, and why?

6.88 The last stage in the calculation is to make an allowance for displacement, as the provision of new floorspace is likely to attract existing businesses as well as new ones, particularly given the market analysis that suggested the quality of existing premises is a significant issue in Greater Manchester. Consequently, some of the jobs in the new floorspace will have moved from elsewhere rather than being additional. The Homes and Communities Agency has published a guide on additionality, which provides a general overview as well as an assessment of displacement rates associated with certain funding programmes. The assessment of the European City Challenge programme[123] undertaken by DETR in 2000 is perhaps most relevant, and this is summarised in the table below[124]. This suggests a very high level of displacement at the county level, which would be similar in scale to the Greater Manchester level, for example with 71% displacement for development projects.

Displacement rates associated with City Challenge						
Intervention type	Within City Challenge	Immediately adjoining area	District	County	Region	UK
Development	17%	21%	38%	71%	89%	91%
Housing	10%	19%	38%	84%	100%	100%
Training and education	8%	17%	31%	77%	78%	80%
Business support	8%	19%	31%	49%	75%	75%

6.89 The Department for Business, Innovation and Skills has also published research on the assessment of additionality[125]. This study involved a review of a large number of intervention evaluations, leading to the identification of a range of displacement rates at the sub-regional and regional levels for different types of intervention. The table below sets out the conclusions for displacement at the sub-regional level.

[123] This programme allocated £37.5 million over five years to each of 31 Urban Programme authorities to achieve self-sustaining regeneration of their designated City Challenge areas.
[124] Homes and Communities Agency (November 2013), *Additionality Guide, Fourth Edition, 2014*, p.29
[125] Department for Business, Innovation and Skills (October 2009), *Research to improve the assessment of additionality*, BIS Occasional Paper No.1, p.19

Category/ sub-category	Number of observations	Lower end of range %	Upper end of range %	Mean %	Median %	+/- at 95% confidence level (%)
All observations	158	0.0	80.0	21.5	12.0	3.6
Business development and competitiveness	**127**	**0.0**	**80.0**	**19.5**	**9.0**	**3.9**
Individual enterprise support	53	0.0	65.0	16.5	7.0	5.4
Sector/cluster support	66	0.0	80.0	22.4	17.5	6.1
Promotion & development of science, R&D and innovation infrastructure	67	0.0	80.0	12.2	5.0	4.7
Attraction of inward investment	9	0.0	50.0	15.5	2.3	14.5
Support for internationalisation of business	7	0.0	51.4	12.3	5.0	15.0
Sustainable consumption/ production	0					
Other	4	5.0	40.0	15.5	8.5	18.9
Regeneration through physical Infrastructure	**41**	**0.0**	**80.0**	**38.7**	**37.0**	**6.7**
Capital projects	19	0.0	70.0	43.1	48.8	9.7
Public realm	19	10.0	80.0	39.0	50.0	11.0
Transport	0					
Promoting image/ culture	12	20.0	70.0	49.2	51.9	10.4
Other	4	10.0	61.0	24.1	13.0	27.8
People and skills	**13**	**0.0**	**64.0**	**17.9**	**11.0**	**11.1**
Matching people to jobs	6	8.0	64.0	27.5	12.0	22.9
Workforce/skills development	3	10.9	12.0	11.6	11.0	1.6
Provision of level 3 or above qualifications	4	0.0	14.0	9.7	12.5	7.5
Supporting development of educational infrastructure	0					
Other	6	0.0	11.0	8.2	10.0	3.8

6.90 Several of the sub-categories could potentially be relevant, including sector/cluster support, attraction of inward investment, and public realm. However, the capital projects sub-category would be expected to best represent the impacts of higher development rates. The number of projects that have fed into the assessment is relatively small (19), and the range of displacement is very wide (0-70%). Consequently, in the absence of any detailed information about the projects involved, it would seem that the median would be less likely to have been skewed by individual outliers and so would be more suitable for using here than the mean. Hence, a displacement rate of 48.8% will be utilised in the calculations in this report. This is the figure that Amion has used to assess the potential employment impacts of Peel's proposed expansion of Port Salford into the Green Belt[126].

Question 19: Do you agree that it is appropriate to assume an average 48.8% displacement rate for jobs in any new employment floorspace provided above

[126] Amion (April 2012), *Port Salford: Employment, Gross Value Added and Business Rates Impact, Submission by Peel Holdings on Salford's Publication Core Strategy*

past development rates? If not, what figure do you think should be used, and why?

6.91 As an example, an uplift of 100,000m^2 of office floorspace on past development rates would be estimated to provide 3,291 additional office jobs (10,000 multiplied by 0.9 to remove the vacant floorspace, then divided by 14 to give the total FTE jobs, and finally multiplied by 0.512 to remove the 48.8% of the total FTE jobs that are displaced from elsewhere in Greater Manchester). Similarly, an uplift of 100,000m^2 of industrial and warehousing floorspace on past development rates would be estimated to provide 781 additional industrial and warehousing jobs (as above, but dividing by 59 rather than 14). When estimating the impact on the wider economy, a further stage needs to be added to the calculation in order to estimate the total number of jobs across all sectors, including those generated in other premises. This involves applying a job multiplier, and is discussed in the next chapter on housing when the impact of any uplift in development rates on the demand for labour is considered.

6.92 The approach set out above starts with a set increase in past development rates, from which a net increase in jobs in the relevant sector is estimated. However, the earlier discussion of employment forecasts showed that the GMFM scenario based on the 2012-ONS population projection for Greater Manchester is already identifying a higher employment growth in the office, industry and warehousing sectors than the 2013 GMFM baseline forecast. It could be argued that the provision of additional floorspace above past development rates in order to accommodate those extra jobs would not necessarily see the same level of displacement as discussed above, given that the additional floorspace would be helping to meet a specific need rather than seeking to attract additional demand. However, the market analysis above suggested that there was a need to improve the supply of new, higher quality floorspace both for offices and industry/warehousing, and so any increase in development rates might be expected to displace some occupiers of existing premises, even if there is demand from new occupiers. Consequently, and to maintain consistency in the methodology for translating floorspace into jobs and vice versa, it is considered appropriate to apply the displacement figure of 48.8% in both approaches.

6.93 On this basis, the impacts of the additional job growth in the offices, industrial and warehousing sectors identified in the GMFM scenario (based on the ONS 2012-based population projection for Greater Manchester) compared to the 2013 GMFM baseline can be estimated. This is shown in the table below.

Sector	Increase in jobs in GMFM scenario compared to GMFM baseline	Increase in floorspace required compared to past development rates (m^2)
Offices	5,884	178,779
Industry and warehousing	3,296	422,025

Conclusion on industrial and warehousing floorspace requirements

6.94 The market analysis above suggests that Greater Manchester and the rest of the North West have a constrained supply of higher quality industrial and warehousing sites and premises. As a result, the sub-region may be missing out on potential investment opportunities. Therefore, even if past development rates are considered to be a realistic indicator of future demand, they may have been dampened by the supply of suitable sites and could underplay the long-term potential of Greater Manchester in relation to industrial and warehousing development. However, it is unclear as to the potential scale of any such dampening, and therefore what might be a realistic level of future uplift of past development rates, particularly in the context of ever-increasing competition between places for investment, as the various market commentaries are generally qualitative rather than quantitative.

6.95 The recent Greater Manchester logistics study identifies the potential for Greater Manchester and the rest of the North West to deliver higher levels of growth in the logistics sector, by securing an increased share of the Midlands market, but only if they are able to provide sites of sufficient scale and connectivity. The study estimates the potential to deliver an additional 235,600m^2 of logistics floorspace in Greater Manchester under a moderate growth scenario compared to that required to simply accommodate floorspace renewal and general market growth, and 349,600m^2 under a high growth scenario. The earlier analysis of Greater Manchester's key competitive strengths and opportunities highlights the potential associated with Port Salford and the Manchester Ship Canal, and with Airport City, which could lead to higher requirements for new logistics floorspace than in the past. Consequently, it may be appropriate to seek a significant uplift in the provision of new logistics floorspace compared to past development rates.

6.96 In contrast, there is little evidence to suggest that Greater Manchester has any particular opportunities to considerably increase its levels of industrial activity compared to past development rates. No major competitive advantages for Greater Manchester have been identified that distinguish it from other sub-regions in relation to this sector of the economy and which could form the basis for having confidence that significantly higher industrial floorspace development rates could be secured in the future than in the recent past. It is possible that a larger logistics sector could promote greater activity in the manufacturing sector, for example in terms of assembly plants benefiting from easy access to key import locations, and there is some evidence that the UK economy as a whole is becoming more competitive resulting in a re-shoring of production[127].

6.97 The overall growth in the Greater Manchester economy may also possibly lead to higher demand for new floorspace, both for industry and warehousing. The earlier discussion of the impact of the additional jobs identified in the

[127] Boston Consulting Group (August 2014), *The Shifting Economics of Global Manufacturing: How cost competitiveness is changing the world*, - https://www.bcgperspectives.com/content/articles/lean_manufacturing_globalization_uk_manufacturing_cost_competitiveness/

GMFM scenario based on the ONS 2012-based population projections compared to the 2013 GMFM baseline forecast suggested that this would require 422,025m^2 of new industrial and warehousing floorspace above past development rates, once vacancies and displacement have been taken into account. This would effectively equate to a 12% uplift on past development rates when looking at the period 2012-2033. This would therefore appear to be the minimum for which Greater Manchester should be planning.

Question 20: Do you agree that a 12% uplift in industrial and warehousing development rates compared to the average over the period 2004-2012 is the minimum that Greater Manchester should be planning for over the period 2012-2033?

6.98 As the market commentaries point to concerns that past activity may have been dampened to some extent by site availability, it is necessary to consider whether an even higher uplift in development rates would be appropriate and achievable. It needs to be recognised that Greater Manchester is in competition for investment with other sub-regions, and so the scope for any significant general uplift is likely to be limited. The lower job growth forecasts from Cambridge Econometrics compared to those from the 2013 GMFM also raise concerns regarding the realism of any major increase in development rates.

6.99 The past development rates for industry and warehousing in Greater Manchester are shown in the table below.

	Gross completed industrial and warehousing floorspace in Greater Manchester (square metres)	
Year	Completed floorspace	% of 2004-2012 average
2004/05	281,839	168
2005/06	165,247	99
2006/07	251,289	150
2007/08	241,799	145
2008/09	142,740	85
2009/10	48,699	29
2010/11	71,656	43
2011/12	135,150	81
Total 2004-2012	1,338,419	
Average per annum	167,302	

6.100 The continuation of past development rates would provide one option for identifying the need for new industrial and warehousing floorspace. This would identify a need for 3,513,350m^2 of new floorspace over the period 2012-2033 (an average of 167,302m^2 per annum). However, this would be insufficient to meet the additional jobs expected as a result of the population

growth forecast in the ONS 2012-based population projections, and for which an uplift of 12% would be required as discussed above.

6.101 The overall average for the monitoring period 2004-2012 is clearly reduced by the low completions in 2009-2011. If the recession and recovery years were excluded, and only the period 2004-2009 was considered, then the average development rate per annum would increase to 216,583m^2 per annum, which is 29.46% higher than the average for 2004-2012. This would seem to be very much an upper bound on what could realistically be achieved, as it takes the development rates from a period of significant economic growth and excludes any recessionary periods, whereas in practice the period 2012-2033 would be expected to include several peaks and troughs in activity rather than just a continued peak, notwithstanding the fact that even the development rates for 2004-2009 could have been dampened to some extent by a constrained land supply.

6.102 As a result, it is not considered that the continuation of past development rates from 2004-2009 throughout the period 2012-2033 would be a realistic basis for an option, but consideration of some percentage uplifts higher than the 12% discussed above would be appropriate, such as 15% and 20%. This would give three options for industrial and warehousing floorspace provision which are summarised in the table below, together with the continuation of past development rates for comparison:

Option	Description	Gross new industrial/warehousing floorspace (m^2) in Greater Manchester (2012-2033)		% uplift on past development rates	Extra jobs directly provided by increase on past development rates	
		Total floorspace	Average per annum		Compared to 2013 GMFM	Compared to GMFM scenario
N/A	Past industry and warehousing development rates (2004-2012)	3,513,350	167,302	0.00%	0	-3,296
IW1	Uplift sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections	3,935,375	187,399	12.01%	3,296	0
IW2	Past development rates plus 15%	4,040,352	192,398	15.00%	4,116	820
IW3	Past development rates plus 20%	4,216,020	200,763	20.00%	5,488	2,192

6.103 Option IW1 would provide an uplift of 422,025m^2 of industrial and warehousing floorspace compared to the continuation of past development rates. This would be more than would be required to accommodate the highest growth scenario from the logistics study, which proposed an additional 349,600m^2 of such floorspace. Given that the main opportunities for growth

appear to be in the warehousing rather than industrial sectors, option IW1 would seem quite ambitious, and further uplifts in past development rates may be unrealistic. Hence, option IW1 is considered to be the most appropriate of the three options.

6.104 This would therefore give a proposed figure for **new industrial and warehousing floorspace for Greater Manchester over the period 2012-2033 of 3,935,375m^2 (gross), equating to 187,399m^2 per annum**.

6.105 A report by Roger Tym & Partners on behalf of 4NW suggested that a typical plot ratio for industry and warehousing is 35%. Applying this to the above floorspace figure would suggest a need for 1,124.4 hectares of industrial and warehousing land to be developed across Greater Manchester over the period 2012-2033[128]. The appropriate balance between the redevelopment of existing sites and the provision of new sites, and whether there is a need for additional land identification to provide flexibility in supply, will be important questions for individual local authorities to consider through their local plans.

Question 21: Do you agree with the three options for industrial and warehousing floorspace provision that have been presented? If not, what other options do you think should be considered?

Question 22 Do you agree that Option IW1 is the most appropriate basis on which to plan?

Question 23: Do you agree that an average plot ratio of 35% is appropriate for new industrial and warehousing provision? If not, what figure do you think should be used?

Conclusion on office floorspace requirements

6.106 The market analysis and discussion of Greater Manchester's competitive advantages strongly suggests that the sub-region has particular opportunities in relation to the office sector, which may provide an opportunity to exceed past development rates, although it needs to be recognised that those past rates have themselves included some very large schemes that have boosted sub-regional competitiveness.

6.107 The city centre is already probably the strongest office location outside London, as reflected by the scale of activity and rental values, and the availability of major, high quality development opportunities provides scope for consolidating that position. Greater Manchester also benefits from MediaCityUK focused around Salford Quays, which provides a second nationally significant hub of office-based activity. When coupled with a very strong higher education sector, excellent national and international transport connections, and the prospect of further improvements through High Speed 2,

[128] Roger Tym & Partners (April 2010), *4NW Setting Employment Land Targets for North West England: Final Report*, paragraph 4.76

Greater Manchester would appear to be in a position to secure a considerable increase in the provision of new office floorspace compared to past development rates.

6.108 The fact that many market commentaries refer to a shortage of Grade A office floorspace further suggests that a continuation of past development rates may be inappropriate. However, site availability has generally been good, particularly in key locations such as the city centre and Salford Quays, and so it would seem that it is wider market factors rather than any planning constraints that have dampened past activity. Consequently, although there may be very considerable potential within Greater Manchester, it may take several decades to fully realise it and some key sites are likely to be developed after 2033. As with industry and warehousing, the relatively low job growth forecasts from Cambridge Econometrics, and the strong competition from other sub-regions, highlights the need to be realistic about the scale of any increase in development activity that could be achieved.

6.109 The earlier discussion of the potential impacts of the GMFM scenario based on the ONS 2012-based population projection for Greater Manchester compared to the 2013 GMFM baseline indicated that an additional 178,779m^2 of office floorspace may be required on top of past development rates. This would equate to an uplift of 7.4%.

6.110 The past development rates for industry and warehousing in Greater Manchester are shown in the table below.

	Gross completed office floorspace in Greater Manchester (square metres)	
Year	Completed floorspace	% of 2004-2012 average
2004/05	149,817	131
2005/06	96,111	84
2006/07	149,666	130
2007/08	120,063	105
2008/09	180,070	157
2009/10	129,390	113
2010/11	60,591	53
2011/12	32,254	28
Total 2004-2012	917,962	
Average per annum	114,745	

6.111 The continuation of past development rates would provide one option for identifying the need for new office floorspace. This would identify a need for 2,409,650m^2 of new floorspace over the period 2012-2033 (an average of 114,745m^2 per annum). However, this would be insufficient to meet the additional jobs expected as a result of the population growth forecast in the

ONS 2012-based population projections, for which an uplift of just over 7% would be required as discussed above.

6.112 As with industry and warehousing, the overall average for the monitoring period 2004-2012 is clearly reduced by low completions, but in the case of offices the relevant years are 2010-2012. If these were excluded, and only the period 2004-2010 was considered, then the average development rate per annum would increase to 137,520m^2 per annum, which is 19.85% higher than the average for 2004-2012.

6.113 Again, this would seem to provide an upper bound on what could realistically be achieved, as it effectively extrapolates a peak in activity, which is known to have been boosted by major development schemes at Spinningfields and MediaCityUK, and ignores the fact that there will undoubtedly be recessions during the period 2012-2033.

6.114 Consequently, it is considered that any options for an uplift on past development rate should be lower than 19.85%, and it therefore would seem appropriate to consider options around a 10% or 15% uplift, in addition to the 7.4% uplift required to deliver the GMFM scenario. This gives three options which are summarised in the table below, along with the continuation of past development rates from 2004-2012 for comparison.

Option	Description	Gross new office floorspace (m^2) in Greater Manchester (2012-2033)		% uplift on past development rates	Extra jobs directly provided by increase on past development rates	
		Total floorspace	Average per annum		Compared to 2013 GMFM	Compared to GMFM scenario
N/A	Past office development rates (2004-2012)	2,409,650	114,745	0%	0	-5,884
OFF1	Uplift sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections	2,588,430	123,259	7.42%	5,884	0
OFF2	Past development rates plus 10%	2,650,615	126,220	10.00%	7,931	2,047
OFF3	Past development rates plus 15%	2,771,098	131,957	15.00%	11,897	6,012

6.115 The earlier discussion highlighted the particular opportunities in Greater Manchester relating to office development, and the distinct competitive advantages that could potentially be exploited. Given that context, it is considered that it may be appropriate to follow the most ambitious of the above options, based around a 15% uplift on past development rates.

6.116 This would therefore give a proposed figure for **new office floorspace for Greater Manchester over the period 2012-2033 of 2,771,098m^2 (gross), equating to 131,957m^2 per annum**.

6.117 In relation to offices, the research by Roger Tym & Partners states that "in our view it is preferable to avoid blanket assumptions about plot ratios, certainly for town centre offices, where such assumptions will often be unreliable. Therefore we suggest that floorspace should be the main yardstick used in planning documents"[129]. Plot ratios can vary enormously between different types of offices in different locations, and so it is not considered helpful to seek to translate the floorspace need into a figure for the amount of land that needs to be developed.

Question: 24 Do you agree with the three options for office floorspace provision that have been presented? If not, what other options do you think should be considered?

Question 25: Do you agree that Option OFF3 is the most appropriate basis on which to plan?

Question 26: Do you agree that the use of an average plot ratio for offices would be misleading? If not, what figure do you think should be used?

Question 27: Do you agree with our assessment of the industrial and warehousing floorspace requirement for Greater Manchester over the period 2012 – 2033? If no, what would you suggest an alternative assessment would be and how would you calculate this alternative?

Question 28: Do you agree with our assessment of the office floorspace requirement for Greater Manchester over the period 2012 – 2033? If no, what would you suggest an alternative assessment would be and how would you calculate this alternative?

Question 29: Are there any variables which we have not used in the technical document which you believe should be included in calculating future industry/warehousing and office provision? If yes, can you please advise what these variables are and the source of them

[129] Roger Tym & Partners (April 2010), *4NW Setting Employment Land Targets for North West England: Final Report*, paragraph 4.79

7. Objectively assessed housing need

Introduction

7.1 This chapter seeks to identify an objectively assessed housing need for Greater Manchester for the period 2012-2033. It considers a wide range of data, focusing particularly on:

- Demographic projections and forecasts
- Past household growth and dwelling completions
- Market signals
- Impacts of economic growth on the demand for labour

7.2 There is no attempt to identify the objectively assessed housing need for individual districts, and this will instead be a key component of the next stage of work on the Greater Manchester Spatial Framework. Similarly, consideration of individual components of housing need, such as the demand for affordable housing or particular types of accommodation, is left to the next stage.

National guidance

7.3 The National Planning Policy Framework states that local planning authorities should "use their evidence base to ensure that their Local Plan meets the full, objectively assessed needs for market and affordable housing in the housing market area, as far as is consistent with the policies set out in this Framework"[130]. This stage of work on the Greater Manchester Spatial Framework is focussing on identifying the overall need for housing across Greater Manchester, and issues of distribution and tenure will be considered as part of the next stage.

7.4 The government's Planning Practice Guidance includes a separate section on housing and economic development needs assessment, which sets out a general approach to identifying the need for housing. It is clear that: "Household projections published by the Department for Communities and Local Government should provide the starting point estimate of overall housing need" (paragraph 2a-015-20140306). However, it also suggests that a "household projection-based estimate of housing need may require adjustment to reflect factors affecting local demography and household formation rates which are not captured in past trends" (ibid). It identifies a range of other variables that should be taken into account, including employment trends and the supply of working age population, and market signals such as land prices, house prices, rents, affordability, development rates and overcrowding.

7.5 It is anticipated that the Department for Communities and Local Government (DCLG) will publish new 2012-based subnational household projections towards the end of 2014. Work on the Greater Manchester Spatial Framework

[130] Department for Communities and Local Government (March 2012), *National Planning Policy Framework*, paragraph 47

will need to be updated in light of these, and other new evidence such as the 2014 release of the Greater Manchester Forecasting Model. This chapter sets out the latest available evidence and seeks to identify an objectively assessed housing need for Greater Manchester, but clearly its conclusions may change once the new DCLG household projections have been taken into account.

Population projections and forecasts

7.6 As discussed in chapter 7, projections and forecasts need to be seen as a possible future given certain conditions, rather than an accurate prediction. They are informed by a range of assumptions about how different variables interrelate and how this may or may not change over time. All projections and forecasts are therefore subject to considerable uncertainty.

7.7 The latest population forecasts available for Greater Manchester are those from the 2013 GMFM, and from the ONS 2012-based population projections published in May 2014[131]. The table below provides a comparison between these two forecasts, and also with previous ONS population projections. The ONS 2011-based projections only covered the period 2011-2021, and so comparisons are provided for that period as well as for the period 2012-2033 covered by the Greater Manchester Spatial Framework.

	Estimated Greater Manchester population				Population change	
	2011	2012	2021	2033	2011-2021	2012-2033
ONS 2008-based	2,622,000	2,635,900	2,765,700	2,913,700	143,700	277,800
ONS 2010-based	2,633,500	2,657,600	2,871,900	3,105,600	238,400	448,000
ONS 2011-based	2,685,386	2,703,814	2,861,002	N/A	175,616	N/A
ONS 2012-based	2,685,386	2,702,209	2,847,467	3,007,391	162,081	305,182
2013 GMFM	2,684,977	2,701,745	2,827,681	2,941,160	142,704	239,415

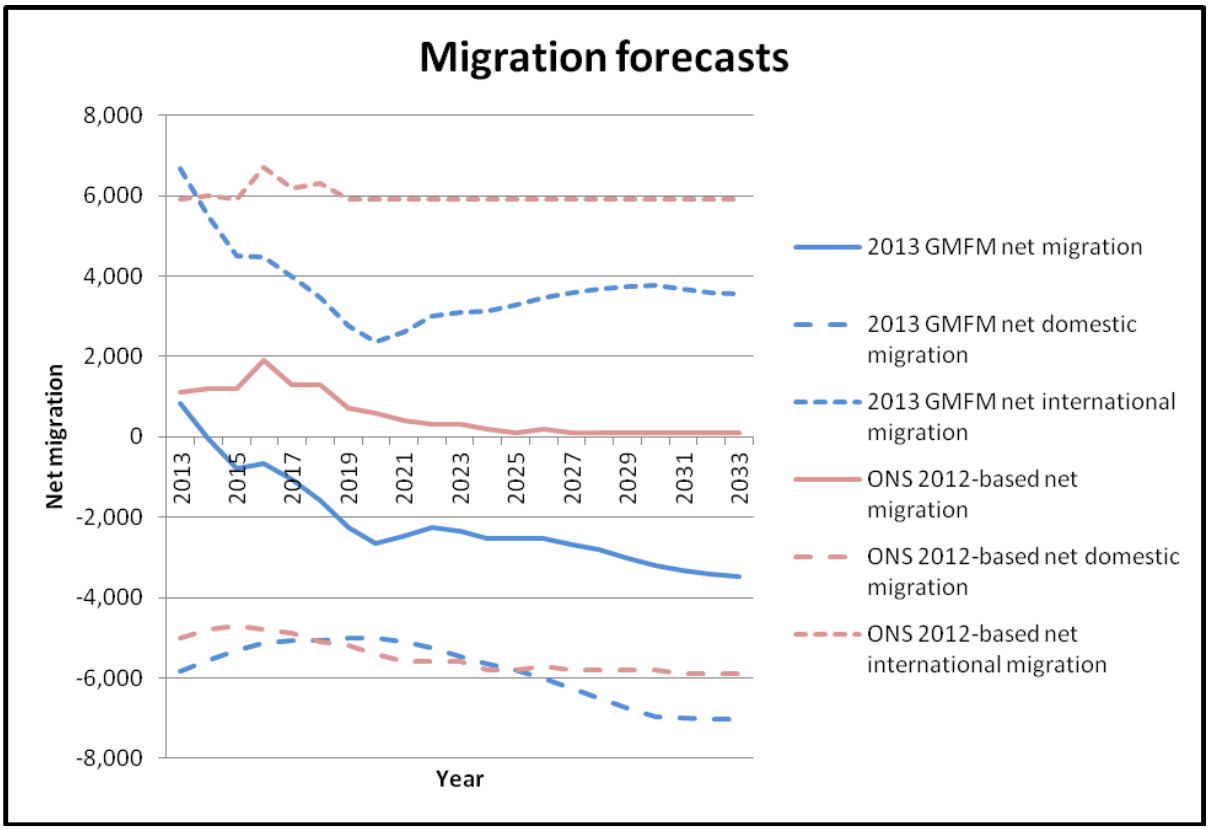
7.8 In terms of the most recent forecasts, the ONS 2012-based projections are significantly higher than the 2013 GMFM forecast, especially when looking over the longer period of 2012-2033, but are lower than the ONS 2011-based projections for the period 2011-2021. The ONS 2010-based projections appear particularly high compared to the other forecasts, whereas the 2013 GMFM forecast seems quite low. This position of the ONS 2012-based projections towards the middle of recent forecasts/projections should reduce the potential for them proving to be a significant under- or over-estimate.

Migration

7.9 The graph below compares the migration estimates from the 2013 GMFM with those from the ONS 2012-based population projections. The ONS projections

[131] As discussed in the previous section, the total population growth for Greater Manchester from the ONS 2012-based subnational population projections has been used as an input to generate a scenario through the GMFM, so that the potential implications for job growth can be seen. Given that population is an input to the GMFM scenario rather than an output, no further details of it are considered here.

suggest that Greater Manchester will have virtually zero net migration by 2033, reducing from 1,100 net in-migration in 2012-2013. In contrast, the 2013 GMFM forecasts a considerable reduction in net migration from a similar base, so that there is net out-migration of more than 3,500 people per annum by 2033. The 2013 GMFM and ONS 2012-based projections are reasonably similar for domestic migration, for which there is expected to be a continued large level of net out-migration. The difference in the overall net migration figures is largely down to the ONS projection identifying a steady level of net international in-migration at just under 6,000 people per annum, whereas the 2013 GMFM foresees a reduction to below 4,000 people per annum. Over the period 2012-2033, this results in the 2013 GMFM forecasting a total net out-migration of almost 45,000 people, whereas the ONS 2012-based projection suggests a total net in-migration of 11,500 people.

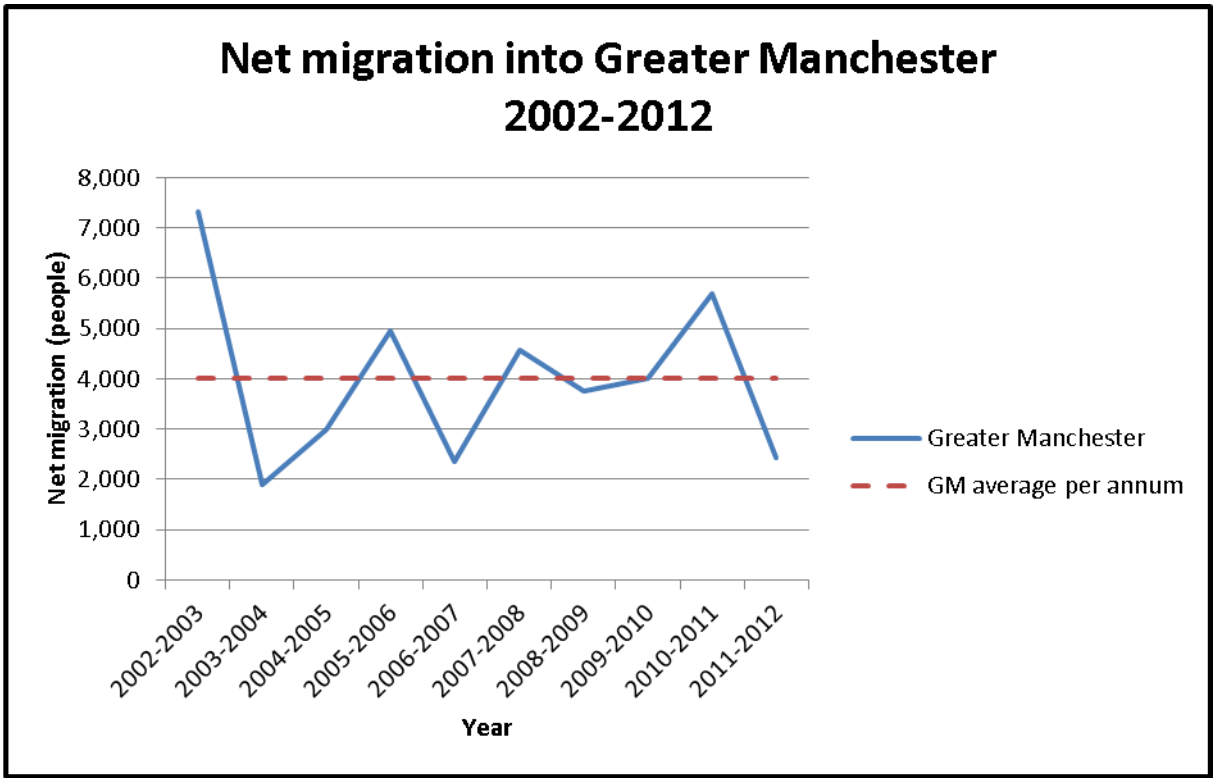


7.10 The PAS advice note on objectively assessed housing need observes that: "To predict migration between local authorities within the UK, the ONS population projections carry forward the trends of the previous five years. This choice of base period can be critical to the projection, because for many areas migration has varied greatly over time"[132]. It gives examples of how relying on a five-year reference period could lead to an under- or over-estimate of housing need.

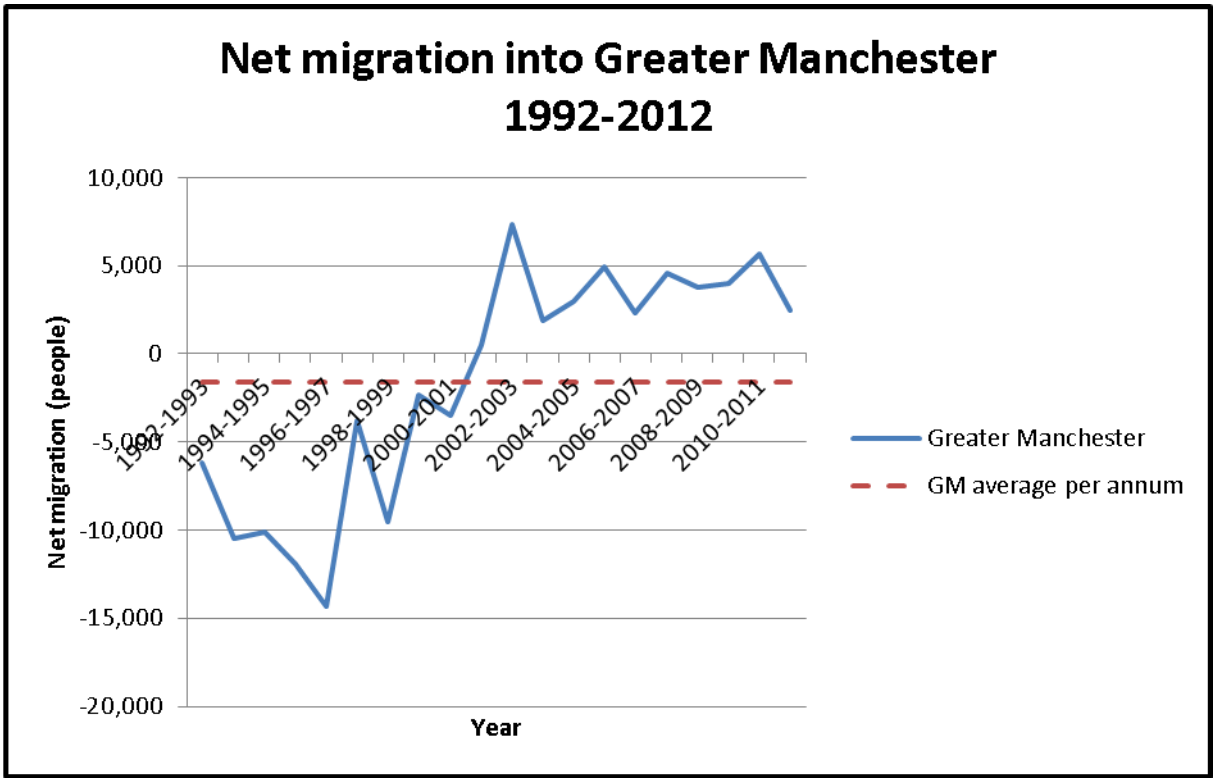
7.11 The graph below shows the net migration levels into Greater Manchester, as identified in the ONS mid-year estimates. The last five-year period is not

[132] Planning Advisory Service (June 2014), *Objectively Assessed Need and Housing Targets: Technical advice note*, paragraph 5.12

atypical compared to the ten-year trend, despite some peaks and troughs, with an average net in-migration of 4,099 per annum over the period 2007-2012 compared to 4,002 per annum in 2002-2012. This is similar to England as a whole, although it had slightly lower net in-migration in 2007-2012 than 2002-2012 (averages of 196,613 and 199,232 respectively). On this basis, there is no reason to consider the migration trends that have fed into the ONS 2012-based subnational population projections to be misrepresentative.

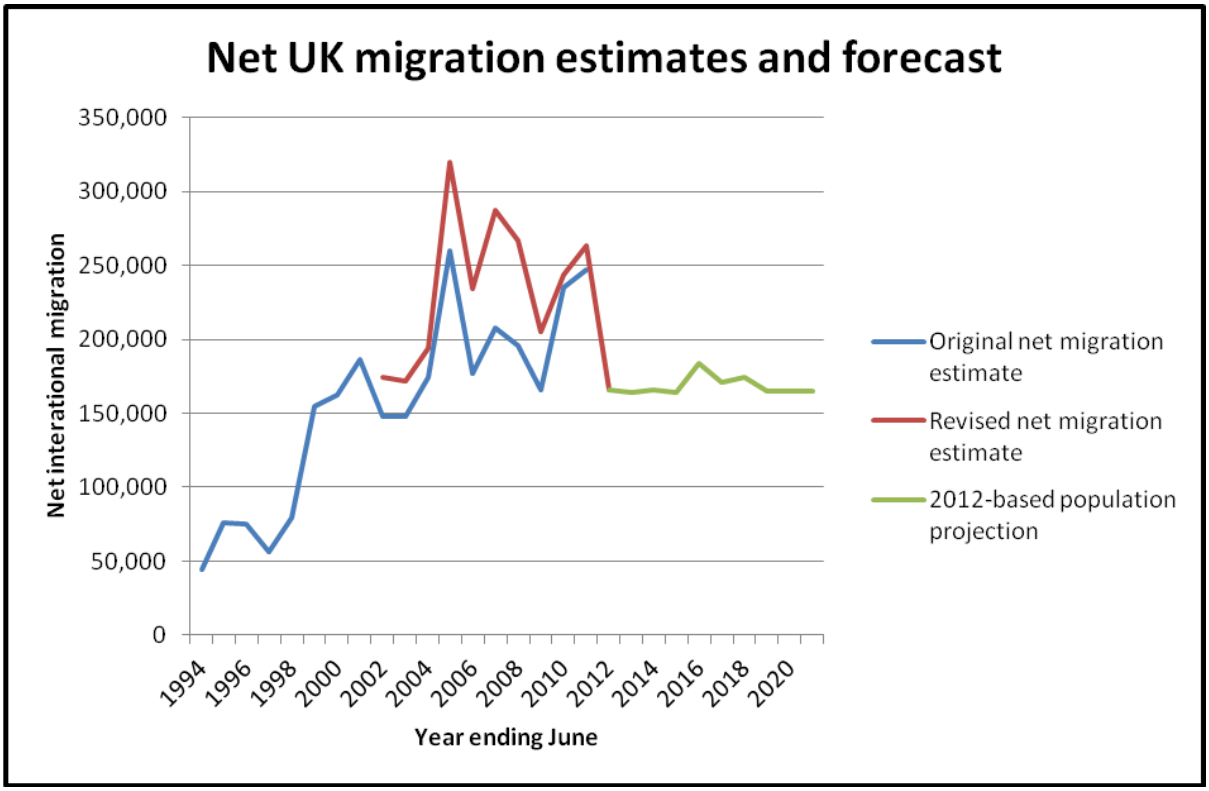


7.12 The next graph provides the same data but for the longer time period of 1992-2012. The ten-year period of 2002-2012 shown above can clearly be seen to mark a clear departure from the previous ten-year period 1992-2012, with a switch from net out-migration to net in-migration (an annual average net out-migration of 7,162 in 1992-2002, compared to average net in-migration of 4,002 per annum). This would suggest that the migration trends that have fed into the ONS 2012-based subnational population projections do not underplay potential population growth, and indeed could be viewed as quite high compared to the 20-year average of net out-migration of 1,580 people per annum.



7.13 A recent ONS report on migration explains that: "In April 2014, ONS published a report examining the quality of international migration statistics between 2001 and 2011, using the results of the 2011 Census. Within that report, ONS published a revised set of net migration estimates for the UK. … This showed that over the ten year period, previously estimated annual net migration estimates were 346,000 lower than the total net migration implied by the 2011 Census"[133]. It appears that it was the original rather than revised net migration estimates that fed into the ONS 2012-based national population projections, and therefore the subsequent subnational population projections. It is unclear whether the revised estimates would have impacted on the estimates of future net migration, but it is possible that taking them into account could led to higher forecast population growth. The graph below compares the projected net migration up to 2021 with the original and revised estimates since 1993/4.

[133] Office for National Statistics (August 2014), *Migration Statistics Quarterly Report, August 2014*, p.3-4



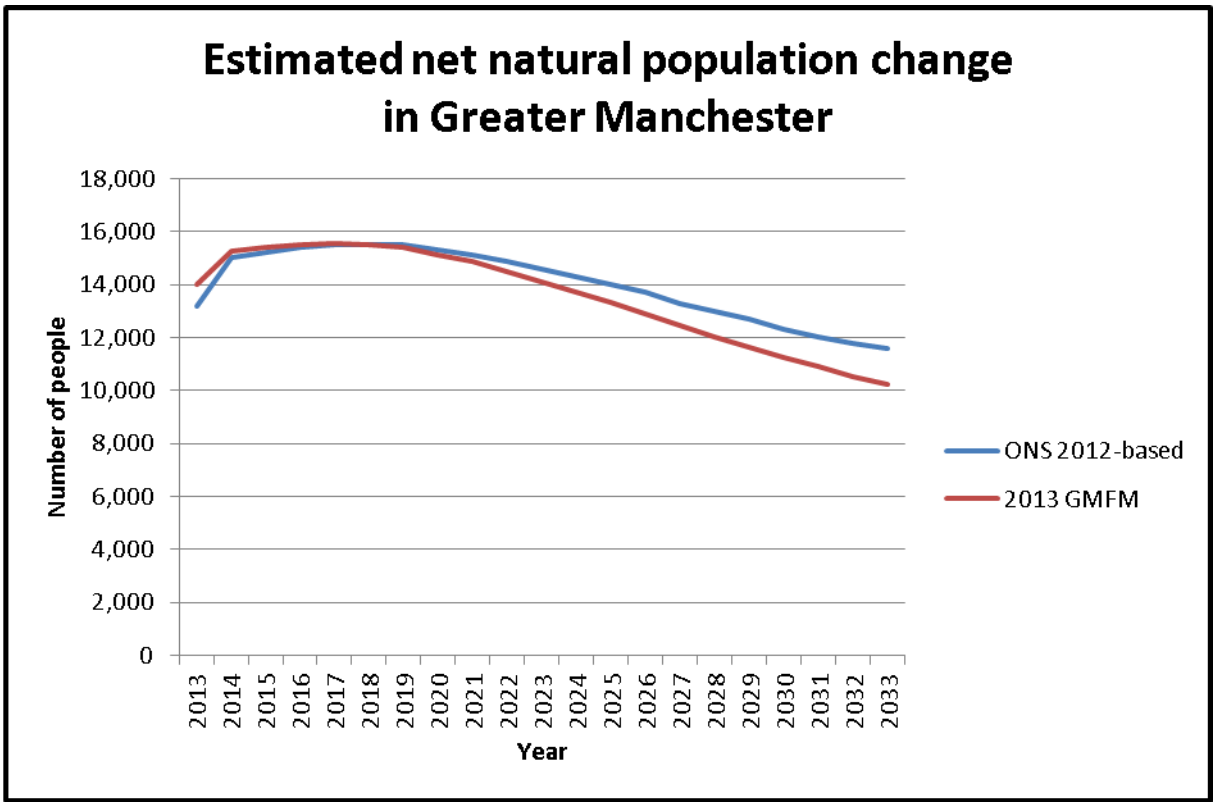
7.14 The latest data from ONS shows an increase in net international migration from 175,000 in the year ending March 2013 to 243,000 in the year ending March 2014, and this is described as statistically significant[134]. This compares with projected rates in the ONS 2012-based national population projections of 165,000 and 166,000 respectively. This suggests that there is a risk that the ONS 2012-based population projections could underestimate potential population growth, at least in the short-term. However, the 2013 GMFM assumes a lower level of net in-migration than ONS in the long-term, at 130,000 per annum, and the "reason for this divergence is primarily due to Oxford Economics' view that such high levels of in-migration is unsustainable, particularly following the recent economic recession and indeed the current public spending cuts will only act as a further deterrent to migrants"[135]. It is also notable that the mid-year estimate for Greater Manchester of 2,714,944 in 2013 is actually lower than the projected population from the ONS 2012-based population projections of 2,716,444, and so it is possible that any differences in net migration at the UK level are being balanced out by other factors. Consequently, it is not proposed that any allowance should be made for any potential additional net international migration, but this is an issue that will need to be monitored.

Question 30: Do you agree that the evidence suggests that no adjustment needs to be made to the migration assumptions in the ONS 2012-based population projections? If not, what alternative scenarios do you think should be tested?

[134] Ibid, p.2
[135] Oxford Economics (Winter 2013), *Greater Manchester Forecasting Model – Technical Note: Model description and data sources*, p.20

Natural change

7.15 The following graph compares the natural population change estimates from the 2013 GMFM and the ONS 2012-based projections, that is the difference between births and deaths. These forecasts are very similar, with the 2013 GMFM producing slightly lower figures. Over the period 2012-2033, this results in a total natural change of 293,900 being forecast by the ONS 2012-based projections and 284,284 by the 2013 GMFM. The reduction in natural growth per annum over the period 2012-2033 is due to the age profile of the population, as life expectancy increases over this period and the birth rate is virtually unchanged.



Unattributable change

7.16 The PAS advice note recommends giving consideration to the unattributable population change (UPC) in the ONS data for 2001-2011, which totals 103,700 at the national level. It concludes that the likely explanation for this "is that the UPC is migration, which was unrecorded or recorded to the wrong places". It suggests that, since the ONS 2012 sub-national population projections ignore the UPC, this may roll forward counting errors, and it may be appropriate to take this into account when using the 2012-based subnational population projections[136].

[136] Planning Advisory Service (June 2014), *Objectively Assessed Need and Housing Targets: Technical advice note*, paragraph 5.9-5.11

7.17 However, the ONS has produced a separate report on this issue, which states that:

"Quality assurance of the 2012-based Subnational Population Projections did not reveal any problems indicating that adjustments for UPC are necessary. … The UPC is unlikely to be seen in continuing subnational trends as:

- It is unclear what proportion of the UPC is due to sampling error in the 2001 Census, adjustments made to MYEs post the 2001 Census, sampling error in the 2011 Census and/or error in the intercensal components (mainly migration).
- If it is due to either 2001 Census or 2011 Census then the components of population change will be unaffected
- If it is due to international migration, it is likely that the biggest impacts will be seen earlier in the decade and will have less of an impact in the later years, because of improvements introduced to migration estimates in the majority of these years.

7.18 Therefore ONS propose that no adjustment be made in the 2012-based Subnational Population Projections for the unexplained component of population change in the revised population estimates series."[137]

7.19 The table below compares the unattributable population change for Greater Manchester and England, taken from the ONS components of change for the mid-year estimates from 2001-2011 (as revised in light of the 2011 Census). This suggests that Greater Manchester accounts for a significant proportion of the national unattributed population change. However, given that the ONS has specifically analysed this issue in detail and concluded that it does not affect its 2012-based population projections, it is not considered appropriate at this stage to make any adjustment for it within the calculation of housing need.

	Unattributable population change	
Year	Greater Manchester	England
2001-2002	3,878	10,905
2002-2003	3,988	10,885
2003-2004	3,985	10,547
2004-2005	4,062	10,524
2005-2006	4,268	12,873
2006-2007	4,372	13,948
2007-2008	4,445	13,966
2008-2009	4,249	12,665
2009-2010	4,041	9,305
2010-2011	3,441	-1,938
Total 2001-2011	40,729	103,680

Question 31: Do you agree that no allowance should be made for the unattributable population change?

[137] Office for National Statistics (January 2014), *2012-based Subnational Population Projections for England: Report on Unattributable Population Change*, p.3-4

Household projections and forecasts

7.20 Both the DCLG household projections and the Greater Manchester Forecasting Model (GMFM) household forecasts take a 'policy off' approach, and do not take into account factors such as housing land supply, either in terms of how this may have affected population and household change in the past or what influence it could have in the future. The GMFM household forecasts are linked to economic growth forecasts, via the impact of economic indicators on migration. The DCLG household projections do not explicitly take into account economic factors, effectively assuming that the influence of such factors on demographics continues in line with past trends.

7.21 Consequently, household projections and forecasts provide a starting point for determining the appropriate scale of future housing provision in Greater Manchester, but it will be important to consider other factors that may lead to changes in the variables that underpin household growth, such as the scale of economic development that is being proposed.

7.22 The last sub-national household projections published by DCLG are 2011-based, and cover the period 2011-2021. They take into account the results of the 2011 Census to some extent, but some of the data underpinning the projections pre-dates that census. The ONS 2011-based population projections on which they were based specifically identified as being 'interim', pending a more comprehensive reassessment of variables, and consequently the DCLG 2011-based household projections are similarly described. The last long-term DCLG sub-national household projections are 2008-based, and now appear quite dated, particularly as they pre-date the recession and 2011 Census, but they do provide estimates up to 2033. The GMFM is updated every year, and results from the 2013 GMFM are available.

7.23 Although the ONS 2012-based population projections provide the latest evidence produced at the national level for future population change in Greater Manchester, they have not yet been translated into household projections by DCLG. However, it is possible to apply the headship rates used by DCLG in previous projections to the ONS 2012-based population projections in order to provide an indication of likely household growth. However, there are very significant differences between the headship rates used by DCLG in their last two projections, with the 2008-based projections assuming much higher overall household formation than the 2011-based projections.

7.24 The Town and Country Planning Association (TCPA) published a report in September 2013 on housing demand and need in England, looking at the period 2011-2031[138], and this highlights the fact that the number of households in England identified in the 2011 Census was 287,000 lower than

[138] Holmans, A.E., *Town & Country Planning Tomorrow Series Paper 16: New Estimates of Housing Demand and Need in England, 2011 to 2031*, (September 2013)

that forecast for 2011 in the DCLG 2008-based household projections[139]. It calculates that, when taking into account the higher than forecast population recorded in the 2011 Census, this actually translates into the 2008-based projections overestimating the number of households by 375,000.

7.25 The TCPA report suggests that part of the 375,000 difference in the number of households in England in 2011 between the 2008-based projection and the 2011-based estimate is permanent, and part is temporary. It estimates that around 200,000 is permanent, due to the 2008-based projection not taking into account the higher levels of international in-migration since 2001 and the lower than average household formation rates for that population. The other 175,000 is attributed to the household formation rates being depressed by unaffordable house prices, economic conditions and the subsequent housing slump. It suggests that this element of the household formation rates will return to previous levels by 2022.

7.26 The PAS advice note makes reference to the conclusions of the inspector who examined South Worcestershire Development Plan, explaining that: "the Inspector advised that up to 2021 to assess housing need the plan-makers should use the interim 2011-based assumptions. Thereafter they should assume that rates of change in HRRs ('headship rates') should return to the earlier trends, as projected in CLG 2008. This method is know as 'indexed' or 're-based'. It assumes that after 2021 headship rates return to the pre-recession rates of change used in the CLG 2008 projection. But they do not catch up with the levels in CLG 2008. In other words, the pre-recession trends are interrupted by the recession and resume after a long pause"[140]. It is important to note that this is not suggesting a full return to the rates used in the DCLG 2008-based household projections, but rather a partial move towards them.

- Overall, therefore, having regard to the TCPA analysis, it would seem likely that future household formation will be broadly mid way between the household formation rates used in the DCLG 2008-based and 2011-based DCLG 2011-based rates – apply the DCLG 2011-based headship rates for the period 2012-2021, and then hold the 2021 rates steady for the period up to 2033
- DCLG 2008-based rates – apply the DCLG 2011-based headship rates in 2012 but then assume a change to the DCLG 2008-based rates by 2033

Average household projections.

7.27 In the rest of this section, three scenarios are presented for translating the ONS 2012-based population projections into household projections:

[139] All references to the 2011 Census in the TCPA report actually relate to the 2011 figures identified in the DCLG 2011-based interim household projections, which are based on but different to the Census figures and informed by the 2011 mid-year population estimates.
[140] Planning Advisory Service (June 2014), *Objectively Assessed Need and Housing Targets: Technical advice note*, paragraph 5.26

- DCLG 2011-based rates – apply the DCLG 2011-based headship rates for the period 2012-2021, and then hold the 2021 rates steady for the period up to 2033
- DCLG 2008-based rates – apply the DCLG 2011-based headship rates in 2012 but then assume a change to the DCLG 2008-based rates by 2033
- take an average of the above two approaches, which given the analysis of headship rates by the TCPA would seem the most likely scenario

7.28 Each calculation begins by translating the total population from the ONS 2012-based population projections into a household population. This has been done by taking the institutional population from the DCLG 2011-based household projections, using the Excel extrapolation tool to extend the institutional population to 2033, and then deducting it from the total population of the projection/forecast to give the household population. The headship rates are then applied to that household population.

7.29 The table below provides a comparison for the shorter period of 2012-2021, which enables the more recent DCLG 2011-based household projections to be included as a comparison. The household forecast based on the ONS 2012-based population projections using the DCLG 2011-based headship rates is included, but the other two scenarios are not because it is considered unrealistic to expect a return to the DCLG 2008-based headship rates in such a short space of time whereas it may be possible by 2033 (see comparison below).

	Number of households		Forecast change 2012-2021		
	2012	2021	Total	Per annum	% per annum
DCLG 2008-based	1,138,316	1,232,830	94,514	10,502	0.89
DCLG 2011-based	1,138,381	1,217,306	78,925	8,769	0.75
ONS 2012-based (2011-based rates)	1,138,742	1,222,755	84,013	9,335	0.79
2013 GMFM	1,137,432	1,202,692	65,260	7,251	0.62

7.30 The DCLG 2008-based projections are significantly higher than the 2013 GMFM forecasts for this period, but the DCLG 2011-based projections are considerably lower than the DCLG 2008-based projections (though still above the 2013 GMFM). The household forecasts based on the ONS 2012-based population projections, using the DCLG 2011-based headship rates, suggest slightly higher growth than that forecast by the DCLG 2011-based household projections.

7.31 The next table provides a comparison for the longer period of 2012-2033, which allows all three household growth scenarios based on the ONS 2012-based population projections to be included. The DCLG 2011-based

household projections stop at 2021, but they have been included here using the Excel extrapolation tool to extend them to 2033 in a very simplistic way.

	Number of households		Forecast change 2012-2033		
	2012	2033	Total	Per annum	% per annum
DCLG 2008-based	1,138,316	1,342,327	204,011	9,715	0.79
DCLG 2011-based	1,138,381	1,323,968	185,587	8,837	0.72
ONS 2012-based (2008-based rates)	1,138,742	1,385,872	247,131	11,768	0.94
ONS 2012-based (2011-based rates)	1,138,742	1,325,519	186,778	8,894	0.73
ONS 2012-based (average)	1,138,742	1,355,696	216,954	10,331	0.83
2013 GMFM	1,137,432	1,272,130	134,698	6,414	0.53

7.32 The following table provides estimates of household growth in Greater Manchester over the period 2004-2012, as a comparison. Both the 2013 GMFM and DCLG household projections give similar figures.

	Number of households		Estimated past change 2004-2012		
	2004	2012	Total	Per annum	% per annum
2013 GMFM	1,071,220	1,137,432	66,212	8,277	0.75
DCLG[141]	1,070,581	1,138,381	67,800	8,475	0.77

7.33 The household forecast based on the ONS 2012-based population projections, using the average of the DCLG 2008-based and 2011-based headship rates, gives a rate of household growth slightly above that seen over the period 2004-2012 and forecast by previous DCLG projections. In this context, the scenario based on the ONS 2012-based population projections and assuming a return to the DCLG 2008-based headship rates appears high. Equally, the 2013 GMFM household forecast seems quite low, and this is partly down to its low population growth forecast discussed earlier and partly due to it utilising the overall household formation rate from the DCLG 2011-based projections.

7.34 National Planning Practice Guidance (PPG) states that: “Household projections published by the Department for Communities and Local Government should provide the starting point estimate of overall housing need” (paragraph 2a-015-20140306). However, given the dated nature of the DCLG 2008-based projections and the limited time period of the DCLG 2011-based projections, it is considered that other data needs to be taken into account. This is reflected in the PPG, which explains that: “The 2011-based Interim Household Projections only cover a ten year period up to 2021, so plan makers would need to assess likely trends after 2021 to align with their

[141] The 2012 figure is taken from the DCLG 2011-based household projections. The 2004 figure is taken from the DCLG 2008-based household projections, as this was not published for the 2011-based projections.

development plan periods" (paragraph 2a-016-20140306). The figures from the 2013 GMFM appear quite low, and so need to be treated with some caution as basing an approach solely on them could risk a future undersupply of housing. The 2012-based sub-national population projections provide the most up-to-date estimate of future population growth in Greater Manchester. The TCPA analysis suggests that the DCLG 2011-based headship rates are likely to prove too low in the long-term as they extrapolate the impacts of the recession, but there is unlikely to be a recovery to the DCLG 2008-based headship rates due to structural changes in the population. Consequently, the application of the average of the DCLG 2008-based and 2011-based headship rates to those population projections should give a reasonable estimate of potential household growth, until the new DCLG 2012-based household projections are released.

7.35 Consequently, **a household growth figure for Greater Manchester of 216,954 households over the period 2012-2033, as identified in the penultimate table above and derived by applying the average of the DCLG 2008-based and 2011-based headship rates to the ONS 2012-based population projections, would seem an appropriate basis on which to calculate a dwelling requirement for the sub-region**. This would equate to an average of 0.83% growth per annum. In the context of other forecasts and projections it appears slightly above average, but utilises the best available information and so its use should minimise the risk of any significant under or oversupply of new housing.

Historic household growth

7.36 The following table identifies the scale and rate of household growth in Greater Manchester and other sub-regions since 1931[142].

	Number of households				
Year	Greater Manchester	Merseyside	West Yorkshire	West Midlands	Greater London
1931	699,286	378,443	527,082	520,113	2,154,603
1951	845,475	463,457	632,399	727,205	2,607,658
1971	941,584	528,507	719,773	915,578	2,651,709
1981	944,239	528,854	747,083	936,293	2,507,603
1991	998,277	551,323	802,958	990,489	2,762,630
2001	1,040,231	571,307	854,040	1,032,944	3,015,997
2011	1,128,100	602,100	922,500	1,086,700	3,266,200
	% increase per annum in the number of households				
Year	Greater Manchester	Merseyside	West Yorkshire	West Midlands	Greater London
1931-1951	0.95	1.02	0.91	1.69	0.96
1951-1971	0.54	0.66	0.65	1.16	0.08
1971-1981	0.03	0.01	0.37	0.22	-0.56

[142] Historic 1931-2001 Census data from www.visionofbritain.org.uk

1981-1991	0.56	0.42	0.72	0.56	0.97
1991-2001	0.41	0.36	0.62	0.42	0.88
2001-2011	0.81	0.53	0.77	0.51	0.80

7.37 It can be seen that the highest rates of growth were generally in the period 1931-1951. Anything above 1% per annum represents a very high rate of growth, not just in Greater Manchester but also in comparable sub-regions and Greater London. In comparison, the 2013 GMFM estimate of household growth over the period 2004-2012 equated to an average increase of 0.75% per annum, and its forecast for 2012-2033 is 0.53% per annum. The estimated household growth figure for 2012-2033 of 216,954 households discussed above equates to an increase of 0.83% per annum, which is towards the top end of what has happened both in Greater Manchester and other sub-regions since 1931, but nevertheless is within the range generally seen.

Dwelling completions

7.38 The table below sets out the number of new dwellings that have been completed (gross additions), the number of existing dwellings that have been lost (gross reductions), and therefore the net change in the total number of dwellings (net additions) across Greater Manchester over the period 2004-2012, as monitored by the ten local authorities. The impacts of the recession can clearly be seen, with a significant reduction in completions after the peak in 2007/8. Net additions averaged just under 3,400 dwellings per annum over the period 2009-2012 compared to an average of around 9,300 dwellings per annum in the previous five years.

	Number of dwellings		
Year	Gross completions	Gross reductions	Net additions
2004/05	9,055	2,046	7,009
2005/06	10,558	2,280	8,278
2006/07	13,192	2,608	10,584
2007/08	15,068	1,599	13,469
2008/09	9,479	2,325	7,154
2009/10	5,664	1,934	3,730
2010/11	4,519	1,497	3,022
2011/12	4,324	930	3,394
Total 2004-2012	71,859	15,219	56,640
Average per annum	7,984	1,691	6,293

7.39 The Government also publishes data on the number of net additional dwellings (DCLG live table 122). Although this data is based on the Housing Flows Reconciliation forms completed by local authorities, there are some differences between this information and that set out above, which partly relates to the DCLG information being rebased in light of the 2011 Census.

However, the main purpose of including the DCLG data here is to provide comparative information for other sub-regions.

	Net increase in number of dwellings								Change 2004-12	
	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	Total	Per annum
Greater Manchester	8,080	8,880	12,220	14,850	8,140	4,750	4,130	3,390	64,440	8,055
Merseyside	3,070	3,410	4,800	4,160	4,130	2,760	1,790	2,020	26,140	3,268
West Yorkshire	6,290	7,360	9,940	10,140	8,620	5,830	5,370	4,830	58,380	7,298
West Midlands	6,730	7,910	6,510	7,400	5,950	5,520	4,690	4,820	49,530	6,191

7.40 This data suggests a higher net dwelling increase in Greater Manchester over the period 2004-2012 than the district monitoring information, at just over 8,000 dwellings per annum compared to just under 6,300 dwellings per annum in the district monitoring. It also suggests an average of more than 10,400 net additional dwellings per annum in the buoyant period of 2004-2009. These net increases were higher than the similarly sized sub-regions of West Yorkshire and West Midlands.

7.41 DCLG live table 253 provides information on dwelling completions, using data from the P2 returns from local authorities, the National House-Building Council (NHBC) and approved inspector data returns. This information relates to gross rather than net additions, and so is not directly comparable with the data above. It is also quite patchy in terms of availability, particularly since 1999. Furthermore, the gross figures that it provides for more recent years are actually lower than the net figures in the DCLG live table 122 and district monitoring, suggesting that some completions are not being recorded, which may partly be a result of the use of approved inspectors for housing from 1998. However, the purpose here is to provide information on more historic levels of dwelling completions, as set out below. This suggests that the net completion rates for 2004-2012 discussed above were relatively high if the average of around 8,000 per annum from DCLG live table 122 is used.

	Gross dwelling completions in Greater Manchester	
Period	Total	Per annum
1980-1985	38,440	7,688
1985-1990	32,460	6,492
1990-1995	35,610	7,122
1995-1999	20,160	5,040

7.42 In this context, some of the household growth forecasts discussed above would appear problematic in terms of delivery. For example, the household forecast based on the ONS 2012-based population projections and a return to

the 2008-based headship rates by 2033 suggested average household growth in Greater Manchester of 11,768 per annum over the period 2012-2033. However, this is not only well above the typical dwelling completions in Greater Manchester over the long term, but is also higher than the total average annual net additions for Greater Manchester and Merseyside combined over the period 2004-2012, which was 11,323 per annum. Consequently, delivering this scale of development in one major conurbation would appear very challenging when it has not been possible to do so across two conurbations in recent years, notwithstanding the impacts of the recent economic recession. Even the household forecast made by applying the average headship rates to the ONS 2012-based population projections appears challenging to deliver in practice, at an average of 10,331 households per annum.

Housing targets

7.43 The last two statutory housing targets for Greater Manchester were:

- An average of 4,340 dwellings per annum for the period 2002-2006, set by the Regional Planning Guidance for the North West (RPG13), published in March 2003
- An average of 9,623 dwellings per annum for the period 2003-2021, set by the North West of England Plan Regional Spatial Strategy to 2021 (RSS), published in September 2008

7.44 Using information on the dwelling stock from DCLG live table 125 as a proxy, since specific net completion data is not available prior to 2004, Greater Manchester delivered 31,130 net additions over the period 2002-2006, significantly exceeding the RPG13 requirement of 17,360 dwellings.

7.45 Using the net completion data from DCLG live table 122, Greater Manchester delivered 64,440 net additions over the period 2004-2012. If it was assumed that the RSS requirement was to be delivered evenly throughout the period 2003-2021, then the total requirement for 2004-2012 would have been 76,984, and so on this basis there was a shortfall. The RSS was clear that: "Some areas will achieve lower levels in the early years, for example during major housing renewal, which will be compensated later"[143]. However, in order to make up the shortfall by 2021, Greater Manchester would need to deliver an average of 11,247 dwellings per annum (i.e. a total requirement of 173,200[144] net additional dwellings, with net completions of 7,540 in 2003/04 (DCLG live table 125) and 64,440 in 2004-2012 (DCLG live table 122), leaving a requirement of 101,220 for the remaining nine years of the period 2003-2021).

[143] Government Office for the North West (September 2008), *North West of England Plan Regional Spatial Strategy to 2021*, paragraph 7.19

[144] This is 173,200 rather than 173,214 (18 multiplied by 9,623), as the figures were expressed for the whole period in the RSS and the 9,623 per annum is a rounded average.

7.46 The table below provides more detailed information on net additions over the period 2003-2012 relative to the average RSS target for Greater Manchester. The sub-region was performing well against the RSS target up to 2009, but the impacts of the recession on dwelling construction have clearly affected performance relative to the average requirement.

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Net additions[145]	7,540	8,080	8,880	12,220	14,850	8,140	4,750	4,130	3,390
RSS requirement	9,623	9,623	9,623	9,623	9,623	9,623	9,623	9,623	9,623
Difference	-2,083	-1,543	-743	2,597	5,227	-1,483	-4,873	-5,493	-6,233
Cumulative difference	-2,083	-3,626	-4,369	-1,772	3,455	1,972	-2,901	-8,394	-14,627

Vacancies

7.47 The table below estimates the proportion of dwellings that were vacant each year over the period 2004-2013, using the figures for the number of vacant dwellings from DCLG live table 615 and the total number of dwellings from DCLG live table 125.

	% of dwellings that are vacant										2004-2013		
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Number	Percent point change	% change
Greater Manchester	4.38	4.57	4.70	4.79	5.01	4.78	4.39	4.03	3.49	3.16	-11,298	-1.22	-23.26
Merseyside	5.19	4.95	5.05	5.27	5.11	4.96	4.69	4.49	4.49	4.08	-5,545	-1.11	-17.74
West Yorkshire	4.64	4.45	4.66	4.99	5.11	5.01	4.61	4.39	4.21	3.85	-4,784	-0.79	-11.38
West Midlands	4.39	3.83	3.79	3.72	3.75	3.30	3.21	3.05	3.06	2.59	-17,953	-1.80	-37.95
Greater London	2.75	2.69	2.70	2.61	2.57	2.57	2.40	2.21	2.13	1.74	-27,420	-1.00	-31.61
England	3.28	3.31	3.37	3.42	3.48	3.40	3.23	3.13	3.05	2.73	-75,808	-0.55	-10.66

7.48 Greater Manchester has seen a significant decline in its vacancy rate since 2008, with just over 3% of dwellings now vacant. This reduction in vacancies may reflect the continuing increase in the number of households at a time when the supply of new dwellings dropped considerably due to the recession, as well as concerted efforts by local authorities to address long-term vacancies. In contrast, the vacancy rate increased over the period 2004-2008, possibly indicating that supply was moving ahead of demand. In this regard, it is notable that 2006/7 and 2007/8 were the only years when Greater Manchester delivered more than 10,000 net additional dwellings per annum. This highlights the possible risks of adopting a high housing target even if there is evidence of potential demand, as that demand may not always be realised in practice for example due to pressures on personal finances.

[145] DCLG live table 122 for 2004-2012 and DCLG live table 125 for 2003/04

7.49 Other parts of the country have also seen recent reductions in their vacancy rates. Greater Manchester's rate is now relatively low, although is still above that of London, England and the West Midlands, with the latter seeing the largest reduction in the proportion of vacant dwellings over the period 2004-2013.

7.50 The next table uses the same data sources (DCLG live tables 615 and 125), but instead uses them to calculate the number of occupied dwellings.

	Greater Manchester		
Year	Total dwellings	Number of occupied dwellings	Increase in occupied dwellings on previous year
2004	1,109,880	1,061,307	
2005	1,117,960	1,066,862	5,555
2006	1,126,840	1,073,831	6,969
2007	1,139,070	1,084,532	10,701
2008	1,153,910	1,096,073	11,541
2009	1,162,050	1,106,457	10,384
2010	1,166,800	1,115,545	9,088
2011	1,170,930	1,123,778	8,233
2012	1,174,320	1,133,305	9,527
2013	1,179,660	1,142,385	9,080
Change 2004-2013	69,780	81,078	
Per annum	7,753	9,009	

7.51 This data suggests an average increase of around 9,000 occupied dwellings per annum in Greater Manchester over the period 2004-2013. Although there have been some peaks and troughs over this period, the increase has been relatively even. When combined with the vacancy data, this would appear to suggest that the reduction in the number of vacant dwellings in Greater Manchester reflects a more efficient use of the housing stock, and it has not been so dramatic that it has resulted in a shortage of housing to meet demand. It also indicates that housing demand in Greater Manchester has typically increased by around 9,000 dwellings per annum in recent years.

7.52 Given that the vacancy rate in Greater Manchester is now only slightly above what might be considered an ideal rate of 3% that balances the need for liquidity in the market with the desire to maximise the effective use of the housing stock, there is probably only limited scope for further reductions in the number of vacant dwellings as a way of meeting the needs of household growth. Consequently, this evidence suggests that at least around 9,000 net additional dwellings per annum may be required if past trends in housing demand continue.

Market signals

7.53 The Planning Practice Guidance states that: “The housing need number suggested by household projections (the starting point) should be adjusted to reflect appropriate market signals, as well as other market indicators of the balance between the demand for and supply of dwellings. Prices or rents rising faster than the national/local average may well indicate particular market undersupply relative to demand” (paragraph 2a-019-20140306). It says that relevant market signals may include land prices, house prices, rents, affordability, rate of development, and overcrowding, and these are discussed below. The PPG suggests that: “A worsening trend in any of these indicators will require upward adjustment to planned housing numbers compared to ones based solely on household projections” (paragraph 2a-020-20140306).

7.54 In addition to those indicators identified in the PPG, the PAS advice note suggests that: “The impact of under-supply works not only through suppressed household formation, but also through suppressed migration. The latter effect is very common, as we can see from the close correlation between housing completions and net migration. If housing land, and hence housing, is in short supply, households will be prevented from moving into the area or will be priced out or forced out of the area”[146].

7.55 There are essentially two ways in which a higher demand for housing could be inferred from such market indicators. On the one hand, it could be suggested from the evidence that household formation is being dampened, and therefore the total number of households is lower than might otherwise be expected, for example because of rising house prices or rents excluding people from the market. This is effectively about the total level of demand. On the other hand, the data could be considered to provide a signal that some households are not living in their preferred location, possibly due to costs or supply availability, and this could for example manifest in lower migration to some places and higher to others. This is essentially about the location of demand rather than its overall size.

7.56 It is very difficult to differentiate between these two reasons from the evidence. However, they may point towards different policy responses. The first suggests that there may be a need for more housing overall, and the issue of household formation is discussed in more detail later in this section. The second suggests that the issue is more about the location of housing rather than the overall amount that is being provided. Consequently, in terms of the latter, an increase in new housing provision in one location may need to be accompanied by a reduction somewhere else in order to avoid an oversupply overall. Hence, great care is required when assessing possible market signals, and it is important to avoid reading too much into a single indicator in isolation.

Land prices

[146] Planning Advisory Service (June 2014), *Objectively Assessed Need and Housing Targets: Technical advice note*, paragraph 5.35

7.57 The following table sets out the residential land price index in July 2010 on a regional basis, together with a national average, based on data from the discontinued DCLG live table 563. It uses three different base dates for the index, as this has some impact on the relative figures at the end of the period. All regions have seen significant growth since 1994, but a decline since 2004. The North West better maintained land values between 2004 and 2010, but actual land prices in January 2010 were reasonably similar to other locations outside London and the South East.

	Average valuation of residential building land with outline planning permission			
	Residential land price index in July 2010			Weighted average price per hectare in July 2010 (£)
	Index of 100 in Spring 1994	Index of 100 in Spring 2001	Index of 100 in January 2004	
North West	311	178	95	1,327,120
North East	257	207	88	1,123,003
Yorkshire and the Humber	292	181	76	1,250,173
East Midlands	275	132	68	1,067,924
West Midlands	274	136	87	1,571,870
East	380	140	84	2,298,157
South East	315	107	82	2,330,618
London	338	118	81	6,457,285
South West	281	111	74	1,501,729
England	324	127	82	2,371,549

7.58 It is not possible to determine Greater Manchester's relative position within the North West from this data. As discussed in the industrial land value section of this report, the VOA published property reports up until 2011. The last of these reports indicated that a 0.5 hectare suburban housing site in Manchester would typically have a value of £1.35 million per hectare, which is very similar to the figure for the North West in the above table.

7.59 The two graphs below are taken from a HCA housing market area report for the North West[147], comparing average land values across Great Britain with those for the Northern area (defined as the North West, North East, and Yorkshire and the Humber) using the Savills residential land value indices. The report observes that: "Nationally, greenfield land values have returned to around two-thirds of their pre-2007 value, whilst average values in the Northern area have remained at only 40% of their previous value having remained static over the last three years. Urban land values proportionally fell further post-2007. The British average value has nearly returned to half of its former level, while Northern land values remain at a third of their pre-2007 level."

[147] Homes and Communities Agency (January 2014), *North West Operating Area Housing Market Report*, p.12

Figure 11: Indexed greenfield residential land value growth, quarterly

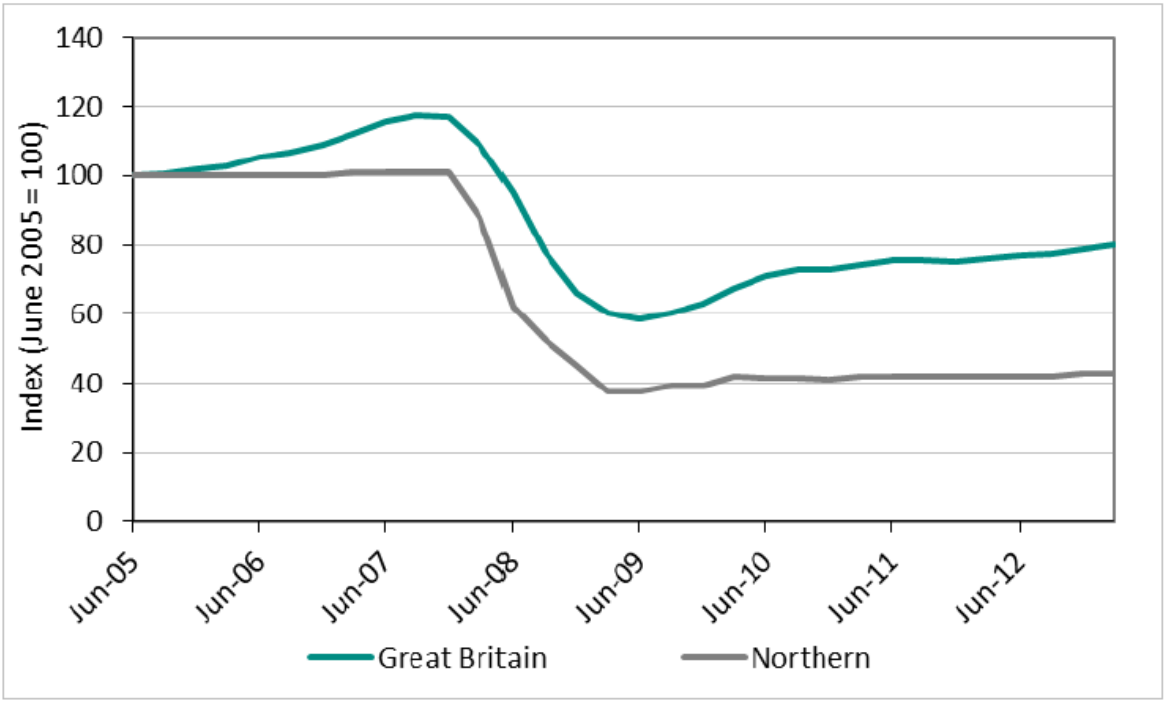
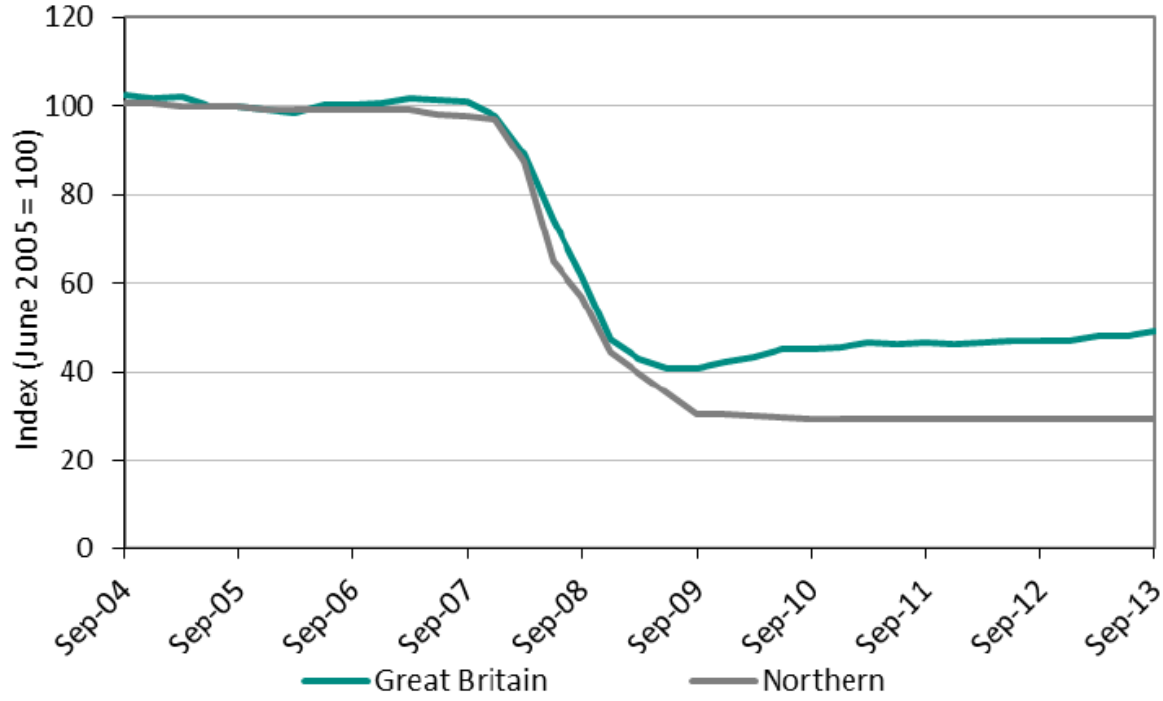


Figure 12: Indexed urban residential land value growth, quarterly

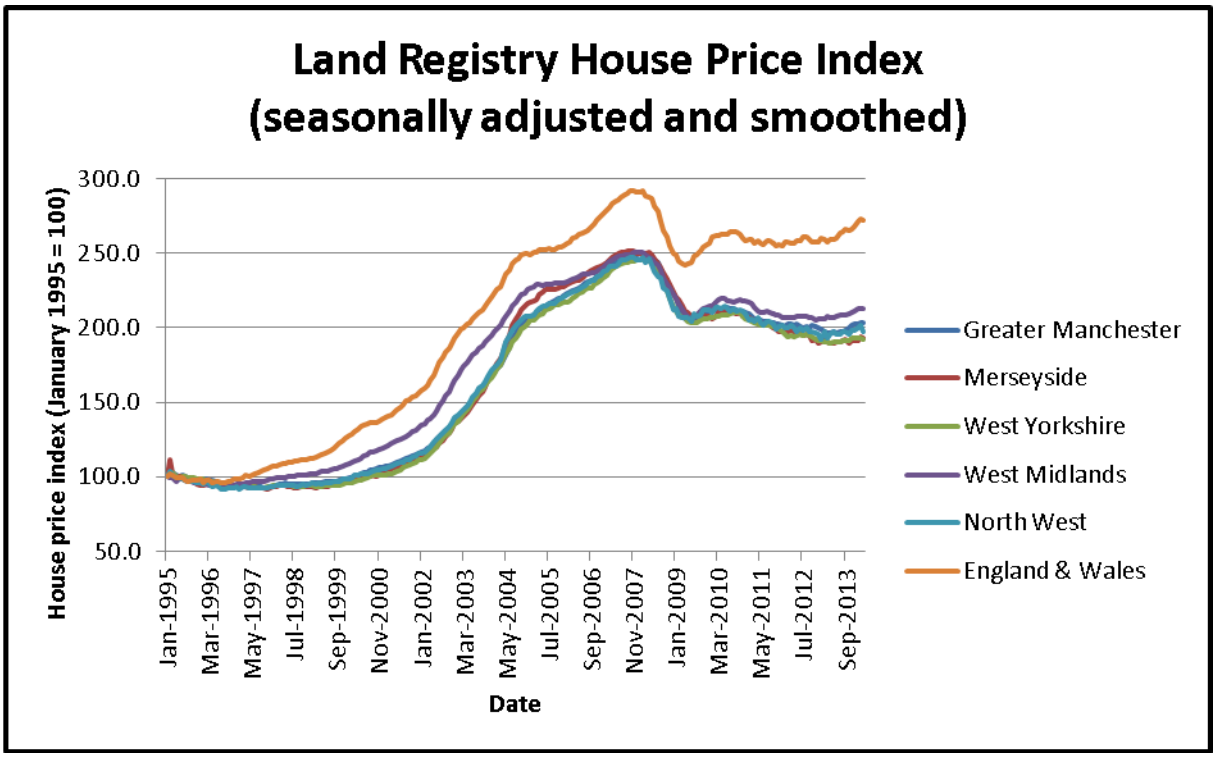


Source: Savills Research, Development Land Statistical Supplement, Sep 2013.

7.60 Values in the Northern area can be seen to be flat since 2009, despite some limited uplift in values across Great Britain as a whole. Consequently, there is no evidence from land values that there is any supply shortage impacting on prices.

House prices

7.61 The graph below shows the Land Registry's house price index for Greater Manchester, comparator sub-regions, the North West, and England and Wales, with a base date of January 1995. This data has been seasonally adjusted and smoothed by the Land Registry[148]. Over this time period, Greater Manchester, the North West and the other three sub-regions all had similar patterns of house price growth, with slightly higher levels in the West Midlands. However, the index for England and Wales has increased more rapidly, and the gap with Greater Manchester has continued to grow in recent years.



7.62 DCLG live table 581 publishes mean (average) house prices based on Land Registry data[149]. The table and graph below summarise this data for the period from 2004, with an index having been calculated using the base date of

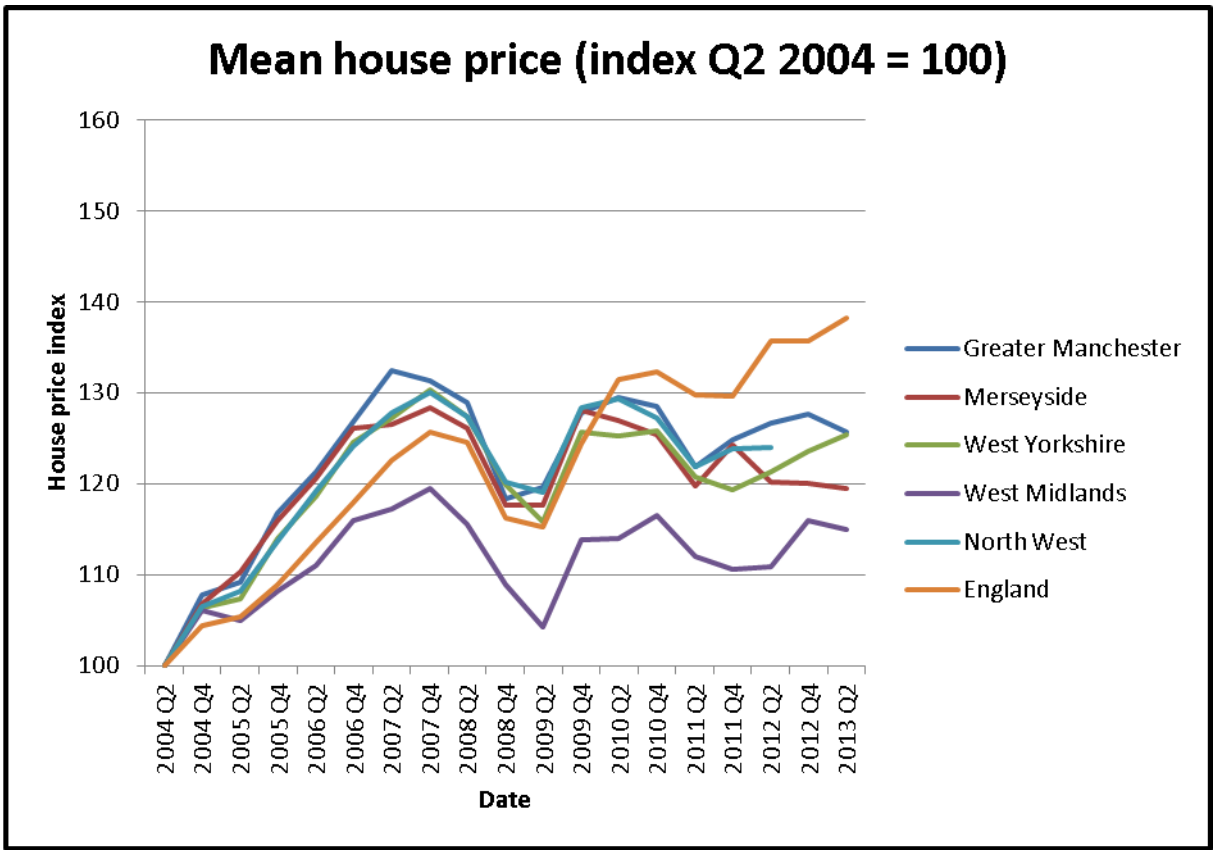
[148] The Land Registry explains that: "The HPI is calculated by using Land Registry's own 'Price Paid Dataset'. This is a record of all residential property transactions made in England and Wales since January 1995. At present it contains details on over 19 million sales. Of these, over seven million are identifiable matched pairs, providing the basis for the repeat-sales regression analysis used to compile the index. This technique of quality adjustment ensures an 'apples to apples' comparison between properties. The HPI is a repeat sales regression (RSR) index, measuring average price changes in repeat sales on the same properties, ensuring a like for like comparison. This means that price changes on a flat in Mayfair are not compared to those on a flat in the Old Kent Road. … The HPI measures nominal house price changes and is not adjusted for inflation." The HPI is designed to remove the influence of seasonal variations on house price changes, and it is smoothed by applying rolling four-month averages weighted for the number of transactions (http://www.landregistry.gov.uk/public/house-prices-and-sales/about-hpi#m1).

[149] The figures exclude sales at less than market price (e.g. Right To Buy), sales below £1,000 and sales above £20m.

quarter 2 in 2004[150]. DCLG has not published regional data since quarter 3 of 2012, and so a full comparison for this spatial unit is not possible.

7.63 Greater Manchester has seen the highest proportionate mean house price growth of the listed sub-regions over the period 2004-2012, slightly above that in West Yorkshire. However, it has still trailed well behind the national average. Despite that growth, the mean house price in Greater Manchester is still below that in West Yorkshire and West Midlands.

	Mean house prices (index 2004 Q2 = 100)			
	2004 Q2		2013 Q2	
	Index	Price	Index	Price
Greater Manchester	100	£119,189	126	£149,860
Merseyside	100	£116,309	119	£138,885
West Yorkshire	100	£123,536	125	£154,825
West Midlands	100	£135,767	115	£156,166
North West	100	£124,774	N/A	N/A
England	100	£178,521	138	£246,764

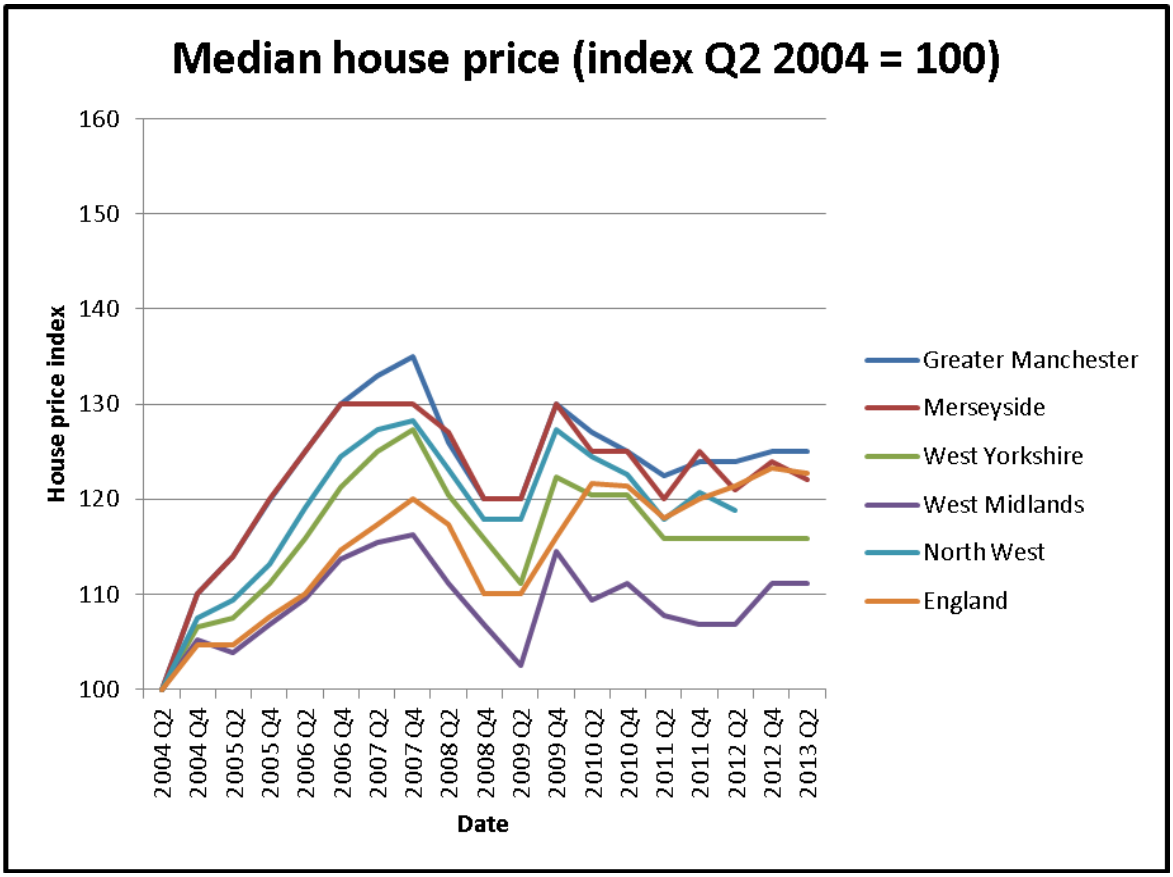


7.64 The next table and graph display similar information, but this time relating to median house prices and taken from DCLG live table 582[151]. Using this

[150] This is a simpler index than the Land Registry's HPI, as it is based on the relative mean house prices rather than repeat sales of the same properties. For example, the index for quarter 2 of 2004 is 100, and the index for any other quarter is calculated by dividing its mean house price by the mean house price in quarter 2 of 2004 and then multiplying by 100.

measure, Greater Manchester has had relatively high proportionate house price growth, slightly exceeding the national average. However, its median house price remains relatively modest compared to other sub-regions and England as a whole.

	Median house prices (index 2004 Q2 = 100)			
	2004 Q2		2013 Q2	
	Index	Price	Index	Price
Greater Manchester	100	100,000	125	125,000
Merseyside	100	100,000	122	122,000
West Yorkshire	100	107,950	116	125,000
West Midlands	100	117,000	111	129,950
North West	100	106,000	N/A	N/A
England	100	150,000	123	184,000



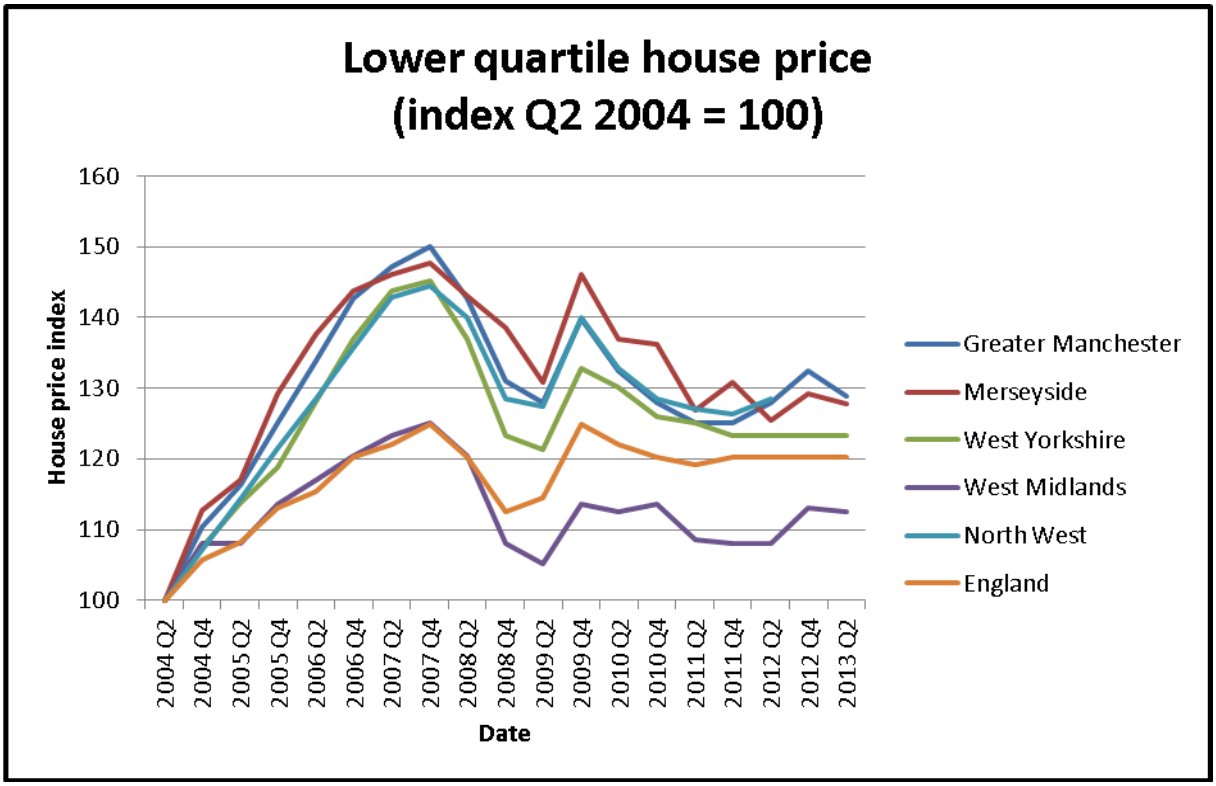
7.65 The following table and graph display similar data again, but in this case provide information on lower quartile house prices and are based on DCLG live table 583[152]. The proportionate growth in Greater Manchester is similar to

[151] The "median" property price is determined by ranking all property prices in ascending order. The median is the mid-point of this ranking with 50 per cent of prices below the median and 50 per cent above. The figures exclude sales at less than market price (e.g. Right To Buy), sales below £1,000 and sales above £20m.

[152] The "lower quartile " property price is determined by ranking all property prices in ascending order. The lowest 25 per cent of prices are below the lower quartile; the highest 75 per cent are above the

that for median house prices, above the national average as well as that of the other sub-regions. However, as with the mean house price, the lower quartile price is relatively low compared to other sub-regions and the national average.

	Lower quartile house prices (index 2004 Q2 = 100)			
	2004 Q2		2013 Q2	
	Index	Price	Index	Price
Greater Manchester	100	67,950	129	87,500
Merseyside	100	65,000	128	83,000
West Yorkshire	100	73,000	123	90,000
West Midlands	100	88,000	113	99,000
North West	100	70,000	N/A	N/A
England	100	104,000	120	125,000



7.66 Overall, there has been some house price inflation, and this has been slightly above comparator sub-regions on some measures. However, house prices in Greater Manchester remain relatively modest compared to those other sub-regions, and low in comparison with the national average, despite Greater Manchester's relatively strong economy. Consequently, there is no clear evidence to suggest that there has been any constrained housing supply overall which has led to price inflation.

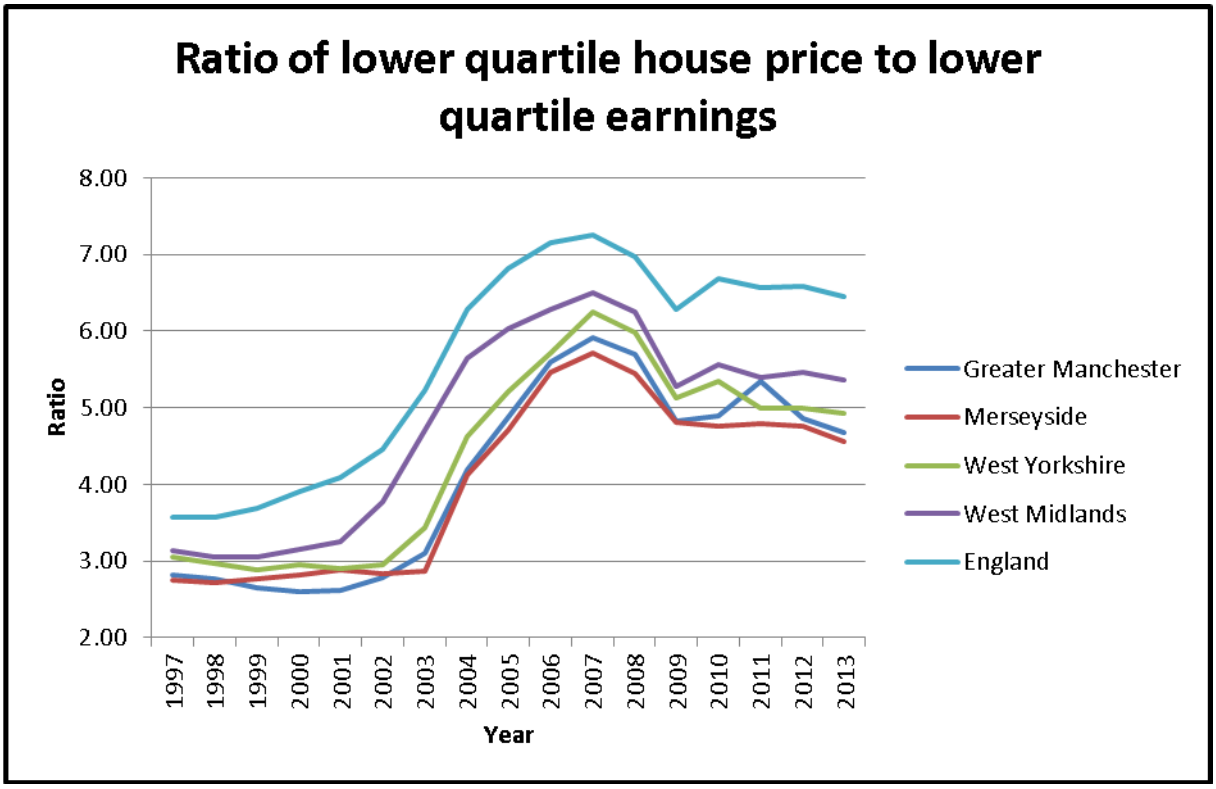
lower quartile. The figures exclude sales at less than market price (e.g. Right To Buy), sales below £1,000 and sales above £20m.

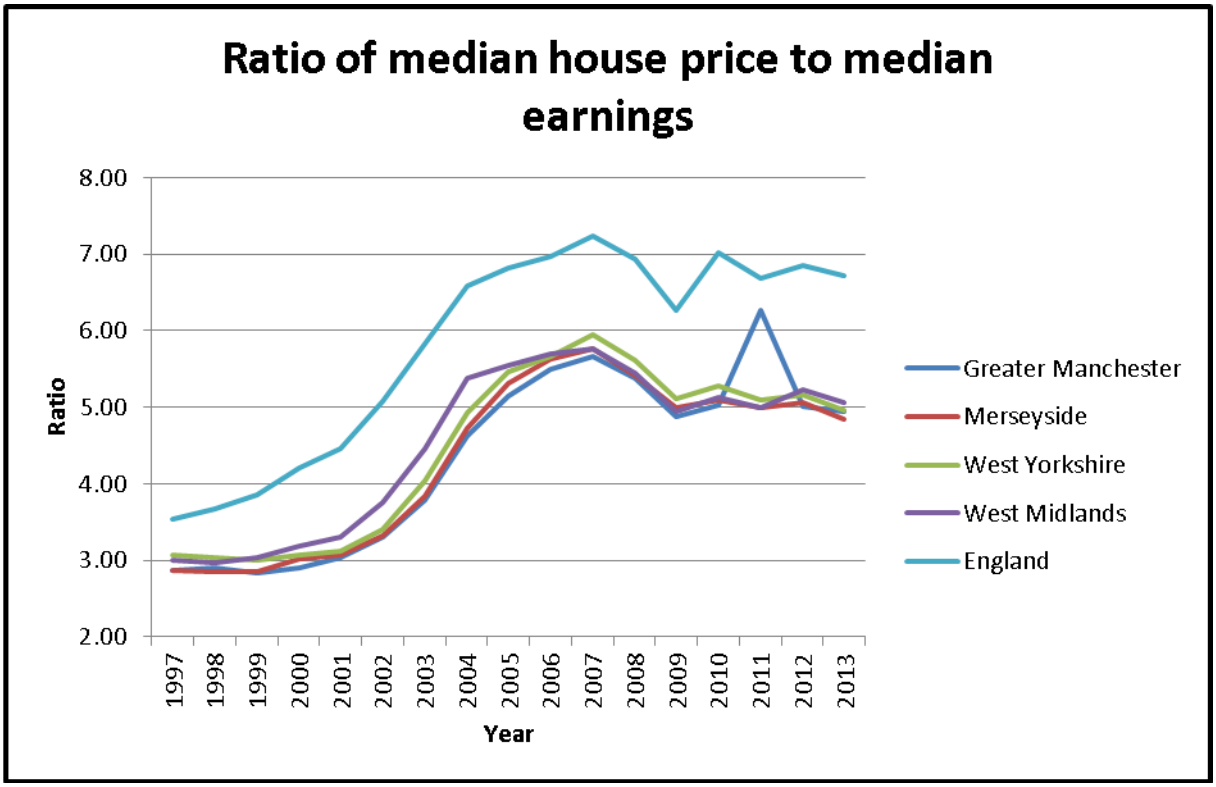
Housing affordability

7.67 DCLG publishes data on the ratio of lower quartile house prices to lower quartile earnings in live table 576, and the ratio of median house prices to median earnings in live table 577. The earnings figures used are the workplace-based gross earnings for full-time employees from the Annual Survey of Hours and Earnings (ASHE). This affordability information is displayed in the following two graphs. It would seem likely that the spike in Greater Manchester's affordability ratio on both measures in 2011 was due to data errors, as it does not reflect the wider trend before or after that date.

7.68 Overall, Greater Manchester has similar levels of affordability to the comparator sub-regions of Merseyside, West Yorkshire and West Midlands, particularly when using the median house price/earnings ratio. In terms of the lower quartile house price/earnings ratio, Greater Manchester has better affordability than both West Yorkshire and West Midlands. On both measures, all four sub-regions have considerably greater affordability than the national average, which is likely to be significantly skewed by London (for example, Inner London's median ratio exceeds 10, and Outer London's exceeds 9).

7.69 All areas saw worsening affordability over the period 2001-2007. Affordability has improved since, broadly returning to levels seen around 2004/5. Greater Manchester's ratio of lower quartile house price to lower quartile earnings stood at 4.68 in 2013, and its ratio of median house price to median earnings was 4.94.





7.70 Although there was significant house price inflation compared to earnings over the period 2001-2007, this may have been due to general market conditions rather than being an indicator of any shortage of housing supply. Average prices have reduced since that period, despite continued significant household growth (averaging 8,724 households per annum over the period 2007-2013, according to the 2013 GMFM), and so this data would not indicate any underlying unmet need or depressed demand that should be factored into an estimate of future housing requirements.

Viability and affordability

7.71 All ten local planning authorities in Greater Manchester utilise planning obligations to mitigate the impacts of new development and to deliver affordable housing. In addition, Trafford Council has adopted a Community Infrastructure Levy (CIL) charging schedule.

7.72 Experience across the sub-region is that the scale of planning obligations that would typically be sought often has to be reduced or waived in order to avoid making development unviable. The examiner for Trafford's draft CIL charging schedule recommended that there should be no levy charged on apartments across more than half of the district, because of the potential impact on viability, and this approach has been taken forward in the adopted charging schedule.

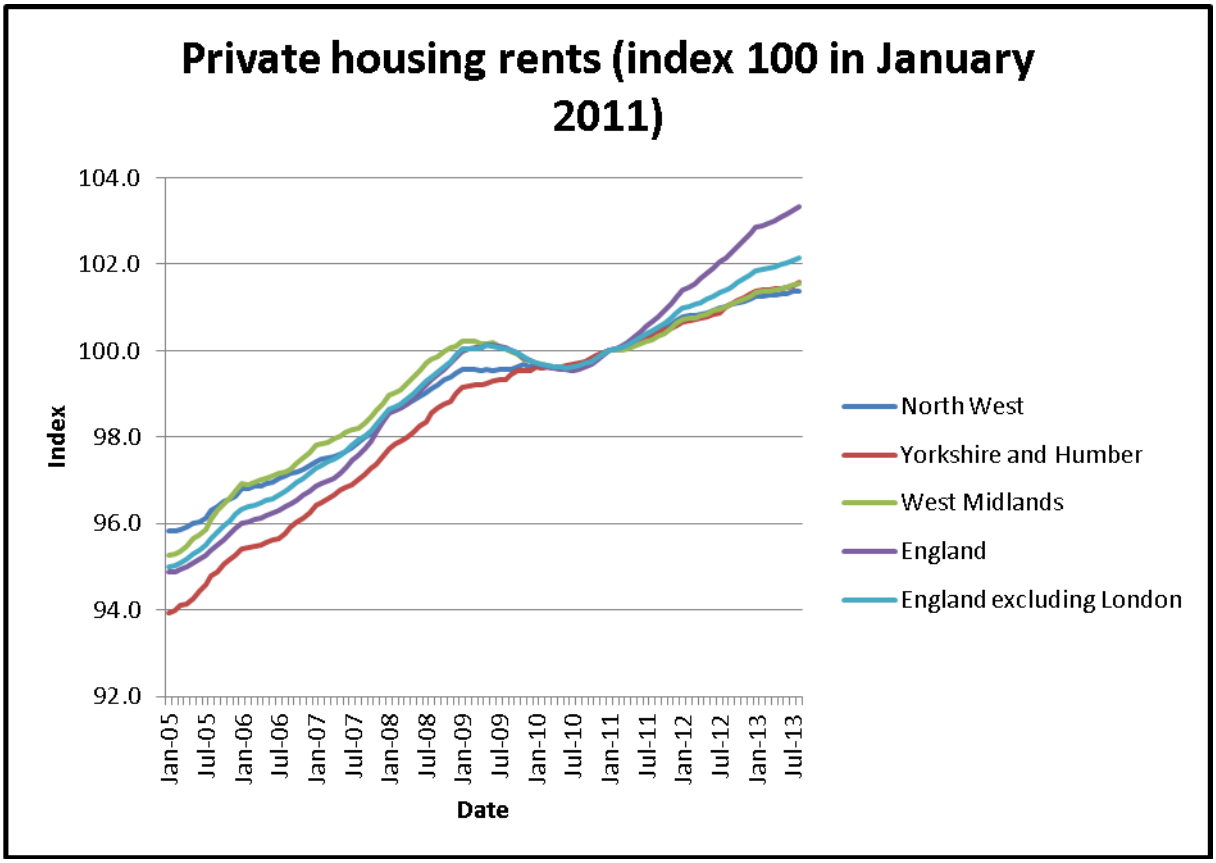
7.73 As discussed above, average residential land prices are comparatively modest in the North West, and this appears to be reflected in Greater

Manchester, although inevitably there will be locations in the sub-region where prices are significantly above the average. Overall, therefore, it would not appear that high land prices are impacting significantly on development viability. The issue is generally one of the balance of construction and financing costs with the sales values that can be achieved. Even on greenfield sites, the message from developers is that it is difficult to fund all of the infrastructure provision required to bring them forward.

7.74 Consequently, contrary to some analyses, it would seem unlikely that a large increase in housing supply would lead to any significant reduction in house prices and an improvement in affordability. Instead, if house prices reduced considerably then some sites would probably become unviable, as the gross development value would no longer be sufficient to cover costs and provide a suitable profit for developers and a competitive return for a willing landowner, and hence the supply of new housing would be reduced. Therefore, affordability would not appear to be a good measure of the balance of supply and demand in Greater Manchester.

Private housing rents

7.75 ONS has produced an experimental index of private housing rents at the regional level. This is indexed to January 2011, but the data is available from January 2005. This suggests that rental growth has been slightly lower in the North West than in the comparator regions since 2005, and has been significantly below the national average in the last few years. The graph shows that the picture for England is somewhat skewed by London, but North West has seen lower proportionate rental growth even when the capital is excluded.



7.76 Over the past few years, New Economy has published a Housing Market Monitor which includes information from Vizzihome on private rents. Indexing this data to April 2010, the table below shows how average private rents have changed over the last four years in Greater Manchester for different types of property. Over the whole period there has been only a modest increase in private rents, with that for apartments slightly higher than for houses. This would suggest that there has not been any worsening of supply relative to demand, despite low housing completion rates over that period.

	Private rent index (April 2010 = 100)										
	Apr 2010	Oct 2010	Jan 2011	Apr 2011	Jul 2011	Oct 2011	Jan 2012	Jun 2012	Mar 2013	Jun 2013	Jan 2014
2 bed house	100.0	99.6	102.2	101.4	102.7	99.8	103.1	103.5	102.7	102.7	103.3
3 bed house	100.0	100.9	99.8	100.0	101.2	95.7	10.2	99.4	102.9	102.2	102.5
4 bed house	100.0	103.7	106.2	106.3	105.5	95.7	104.3	101.3	103.8	102.5	103.5
Studio apartment	100.0	101.2	98.8	106.2	107.0	104.2	100.2	112.2	106.5	111.7	107.7
1 bed apartment	100.0	97.4	100.0	101.3	104.1	102.1	100.4	105.6	105.2	108.6	105.2
2 bed apartment	100.0	95.8	100.0	100.5	103.4	100.5	100.2	106.6	104.5	106.1	103.4
3 bed apartment	100.0	99.2	94.0	103.1	102.8	95.8	106.0	105.6	105.6	109.3	104.2

Overcrowding

7.77 The table below summarises data from the 2011 Census relating to overcrowding, based on the number of bedrooms available in a dwelling relative to the number of occupants. The rate of overcrowding in Greater Manchester is marginally above that in England and Wales as a whole. It would seem likely that most overcrowding relates to the availability of suitably sized property at an affordable price/rent, rather than necessarily being an indicator of whether there is a shortfall in the total number of dwellings relative to demand.

Area	All households	Households needing at least one additional bedroom	% of households needing at least one additional bedroom
Greater Manchester	1,128,066	54,677	4.8
Merseyside	602,087	21,035	3.5
West Yorkshire	922,452	40,575	4.4
West Midlands	1,086,748	71,729	6.6
North West	3,009,549	111,589	3.7
England and Wales	23,366,044	1,100,606	4.7

7.78 The next table compares levels of overcrowding from the last two censuses, but this time using the measure of the number of rooms (rather than bedrooms). It relates the actual number of rooms to the number of rooms 'required' by the members of the household, based on an assessment of the relationship between household members, their ages and gender. All areas shown have seen an increase in the level of overcrowding between 2001 and 2011. The proportion of households needing at least one additional room in Greater Manchester remains below the national average.

	2001 Census			2011 Census		
	Total households	Households needing at least one additional room	% of households needing at least one additional room	Total households	Households needing at least one additional room	% of households needing at least one additional room
Greater Manchester	1,040,231	66,698	6.41	1,128,066	92,332	8.18
Merseyside	571,307	32,547	5.70	602,087	37,980	6.31
West Yorkshire	854,040	61,912	7.25	922,452	75,840	8.22
West Midlands	1,032,944	76,063	7.36	1,086,748	99,876	9.19
North West	2,812,789	152,248	5.41	3,009,549	187,816	6.24
England	20,451,427	1,457,512	7.13	22,063,368	1,928,596	8.74

Concealed families

7.79 The 2011 Census provides data on the number of 'concealed' families, and this is summarised below. A concealed family is one living in a multi-family household in addition to the primary family, such as a young couple living with parents. A single person cannot be a concealed family, and so one elderly parent living with their adult child and family or an adult child returning to the parental home is not counted as a concealed family. As a result of these definitions, the table presents data on families rather than households.

7.80 As with overcrowding, this information does not necessarily mean that there is an insufficient quantity of housing, and may relate more to the affordability of housing taking into account other financial pressures on the families involved. The ONS has observed that the high proportions of concealed families in some areas may be a result of cultural differences in familial ties[153]. The proportion of families that are concealed in Greater Manchester is the same as across England as a whole. It is slightly above the regional average, but below that seen in West Yorkshire and West Midlands, which were two sub-regions that also have higher levels of overcrowding.

	Total families	Concealed families	% of families that are concealed
Greater Manchester	736,781	13,643	1.85
Merseyside	381,403	6,058	1.59
West Yorkshire	617,982	13,935	2.25
West Midlands	739,582	22,540	3.05
North West	1,985,879	32,128	1.62
England	14,885,145	275,954	1.85

7.81 Comparable figures are not available at the sub-regional level from the 2001 Census, but there has been an increase at both the regional level (from 1.1% to 1.6%) and the national level (from 1.2% to 1.8%) between 2001 and 2011[154].

Market signals overview

7.82 In summary, the above market signals do not provide any clear indication that there has been any shortage of housing in Greater Manchester. Consequently, it is not considered appropriate to make any upward adjustment to estimates of housing need across Greater Manchester as a whole in response to this evidence. However, it is possible that these market signals may indicate that there is a shortage of supply in some parts of the sub-region relative to others, which could influence the distribution of any total Greater Manchester housing figure between the ten districts, and this will be

[153] Office for National Statistics (February 2014), *What does the 2011 Census tell us about concealed families living in multi-family households in England and Wales?*, p.6
[154] Ibid, p.8

considered as part of the next stage of work on the Greater Manchester Spatial Framework.

Question 32: Do you agree that there is insufficient evidence from the market signals to make an upward adjustment to Greater Manchester's housing requirement? If you think some such adjustment is required, how much and why?

Impact of economic growth on household growth

7.83 The scale of economic growth that is achieved across Greater Manchester could have a significant impact on population and household growth. For example, depending on employment rates, higher economic growth could be expected to promote more in-migration and consequently an increased demand for housing.

7.84 The previous chapter discussed the scale of new employment floorspace that may be required, and concluded that it would be appropriate to seek an increase on past development rates for industrial, warehousing and office floorspace. It is important to consider the implications that this might have for household growth.

7.85 There are three key variables that are considered here when seeking to calculate the potential impacts of higher economic growth:

- The number of additional jobs resulting from the higher levels of employment floorspace development
- The proportion of residents of working age that it is realistic to assume could be in employment (the resident employment rate), taking into account likely policy interventions
- The level of net in-commuting to Greater Manchester and how this might change over time

7.86 These issues are discussed in turn below.

Question 33: Are there any other issues that should be taken into account when considering the potential impacts of higher economic growth on household growth?

Number of additional jobs resulting from higher economic growth

7.87 The previous chapter identified three options for industrial and warehousing development, and three options for office development, and these are set out in the table below (the recommended option for each is in bold type).

Option	Description	Gross new floorspace (m^2) in Greater Manchester (2012-2033)	% uplift on past development	Extra jobs directly provided by increase on past development rates

		Total floorspace	Average per annum	rates	Compared to 2013 GMFM	Compared to GMFM scenario
Industrial and warehousing development						
IW1	**Uplift sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections**	**3,935,375**	**187,399**	**12.01%**	**3,296**	**0**
IW2	Past development rates plus 15%	4,040,352	192,398	15.00%	4,116	820
IW3	Past development rates plus 20%	4,216,020	200,763	20.00%	5,488	2,192
Office development						
OFF1	Uplift sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections	2,588,430	123,259	7.42%	5,884	0
OFF2	Past development rates plus 10%	2,650,615	126,220	10.00%	7,931	2,047
OFF3	**Past development rates plus 15%**	**2,771,098**	**131,957**	**15.00%**	**11,897**	**6,012**

7.88 The last column on the right identifies the number of additional jobs that the extra floorspace above past development rates would be expected to provide compared to the GMFM scenario based on the ONS 2012-based population projection for Greater Manchester. Due to the higher jobs growth in the GMFM scenario compared to the 2013 GMFM baseline forecast, options IW1 and OFF1 do not deliver any additional jobs compared to the GMFM scenario and are effectively the options required to deliver that scenario.

7.89 The figures in the table only relate to the jobs within the floorspace provided, and do not take into account the multiplier effects that might be anticipated in the wider economy as a result of those extra jobs, for example in sectors that provide services for the additional workers and businesses. It is the extra jobs compared to the GMFM scenario that are relevant here, rather than the 2013 GMFM baseline forecast, since the additional jobs in options IW1 and OFF1 have already effectively taken into account multiplier effects as they form part of a scenario looking at the whole economy rather than just the industry/warehousing and office sectors.

7.90 As a result, it is necessary to apply a job multiplier to the jobs that are additional to the GMFM scenario (the right-hand column in the above table) in order to assess the overall impacts of delivering an uplift on past development rates. A publication by BIS[155] identifies a range of multiplier figures for use in

[155] Department for Business, Innovation and Skills (October 2009), *Research to improve the assessment of additionality*, BIS Occasional Paper No.1, p.27

identifying the wider economic benefits stimulated by the direct benefits of an intervention, and these are summarised in the table below.

Category/ sub-category	Number of observations	Lower end of range %	Upper end of range %	Mean %	Median %	+/- at 95% confidence level (%)
All observations	137	1.00	2.71	1.25	1.21	3.9
Business development and competitiveness	**117**	**1.00**	**2.17**	**1.25**	**1.2**	**3.7**
Individual enterprise support	49	1.00	1.50	1.21	1.20	2.8
Sector/cluster support	64	1.00	2.17	1.26	1.21	6.1
Promotion & development of science, R&D and innovation infrastructure	63	1.00	2.17	1.2	1.16	5.4
Attraction of inward investment	5	1.10	1.98	1.42	1.40	33.1
Support for internationalisation of business	7	1.20	1.56	1.35	1.30	10.2
Sustainable consumption/ production	0					
Other	4	1.10	1.80	1.28	1.13	38.8
Regeneration through physical Infrastructure	**35**	**1.10**	**2.71**	**1.33**	**1.32**	**9.9**
Capital projects	17	1.10	2.71	1.46	1.38	18.0
Public realm	16	1.10	2.71	1.26	1.21	19.8
Transport	0					
Promoting image/ culture	12	1.32	1.46	1.36	1.35	3.1
Other	1	1.24	1.24	1.24	1.24	-
People and skills	**5**	**1.09**	**2.71**	**1.66**	**1.40**	**67.2**
Matching people to jobs	2	1.12	2.71	1.92	1.91	220.4
Workforce/skills development	0					
Provision of level 3 or above qualifications	3	1.09	1.98	1.49	1.40	62.0
Supporting development of educational infrastructure	0					
Other	1	1.98	1.98	1.98	1.98	-

7.91 As with the earlier discussion of displacement, it is considered that the 'capital projects' category most closely reflects the provision of additional employment floorspace above past development rates, and the median figure is likely to minimise any disproportionate impact of outlier schemes. Consequently, a job multiplier of 1.38 is used here. This is also the figure that Amion has used to assess the potential employment impacts of Peel's proposed expansion of Port Salford into the Green Belt[156]. Given that some of the multiplier effects of additional industrial and warehousing development may be in the office sectors, and vice versa, there is the potential for some double-counting resulting in an overestimate of total jobs growth. However, there is no simple

[156] Amion (April 2012), *Port Salford: Employment, Gross Value Added and Business Rates Impact, Submission by Peel Holdings on Salford's Publication Core Strategy*

way of quantifying this, and hence the jobs multiplier of 1.38 is applied throughout.

Question 34: Do you think that a job multiplier of 1.38 should be applied to all employment sectors? If not, what figure would you suggest?

7.92 The next table identifies the overall employment increase associated with each floorspace option compared to the employment forecast of the GMFM scenario that is based on the ONS 2012-based population projections.

Option	Description	Extra jobs resulting from increase on past development rates compared to GMFM scenario based on the ONS 2012-based population projection for Greater Manchester (2012-2033)	
		Directly provided by additional floorspace	Overall, applying job multiplier of 1.38
Industrial and warehousing development			
IW1	**Uplift sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections**	**0**	**0**
IW2	Past development rates plus 15%	820	1,131
IW3	Past development rates plus 20%	2,192	3,025
Office development			
OFF1	Uplift sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections	0	0
OFF2	Past development rates plus 10%	2,047	2,825
OFF3	**Past development rates plus 15%**	**6,012**	**8,297**

7.93 Different combinations of these options then give different total employment forecasts for 2033, and therefore different overall labour requirements. The impacts of these different combinations are set out below, with the recommended combination of options highlighted in bold type. The figure of 1,095,894 in the top row is the total employment forecast from the GMFM scenario based on the ONS 2012-based population projection for Greater Manchester.

	Combination of options	Greater Manchester work-based employment in 2033	
		Forecast total	Increase on baseline
IW1 and OFF1	Uplift in industry/warehousing and offices sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections	1,095,894	0
IW1 and OFF2	Uplift in industry/warehousing sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections, and 10% uplift in office development rates	1,098,719	2,825
IW1 and OFF3	**Uplift in industry/warehousing sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections, and 15% uplift in office development rates**	**1,104,191**	**8,297**
IW2 and	15% uplift in industry/warehousing development	1,097,026	1,131

	Combination of options	Greater Manchester work-based employment in 2033	
		Forecast total	Increase on baseline
OFF1	rates, and uplift in offices sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections		
IW2 and OFF2	15% uplift in industry/warehousing development rates, and 10% uplift in office development rates	1,099,850	3,956
IW2 and OFF3	15% uplift in industry/warehousing development rates, and 15% uplift in office development rates	1,105,323	9,429
IW3 and OFF1	20% uplift in industry/warehousing development rates, and uplift in offices sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections	1,098,919	3,025
IW3 and OFF2	20% uplift in industry/warehousing development rates, and 10% uplift in office development rates	1,101,743	5,849
IW3 and OFF3	20% uplift in industry/warehousing development rates, and 15% uplift in office development rates	1,107,216	11,322

7.94 The figures above relate to total employment in terms of full-time equivalents. However, in order to calculate the resident employment rate (which is discussed below), the 2013 GMFM uses a different measure of total employment in terms of the number of work-based people. This reflects the fact that there is not a 1:1 ratio between the number of people in work and the number of full-time equivalent jobs, and effectively more people are required than the full-time equivalents. The table below compares the relevant figures from the 2013 GMFM.

	2013 GMFM forecast	
	2012	2033
Total employment (full-time equivalent)	981,011	1,075,851
Total employment (work-based people)	1,247,604	1,380,110
Ratio of work-based people to full-time equivalents	1.2718	1.2828

7.95 Applying the forecast ratio for 2033 from the 2013 GMFM baseline forecast to the figures in the previous table gives the following forecasts of Greater Manchester employment on the basis of work-based people for each of the combination of employment floorspace options.

	Combination of options	Forecast total employment in 2033 (work-based people)
IW1 and OFF1	Uplift in industry/warehousing and offices sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections	1,405,822
IW1 and OFF2	Uplift in industry/warehousing sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections, and 10% uplift in office development rates	1,409,445
IW1 and OFF3	**Uplift in industry/warehousing sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections, and 15% uplift in office development rates**	**1,416,465**
IW2 and OFF1	15% uplift in industry/warehousing development rates, and uplift in offices sufficient to accommodate extra jobs in GMFM scenario	1,407,273

	Combination of options	Forecast total employment in 2033 (work-based people)
	based on ONS 2012-based population projections	
IW2 and OFF2	15% uplift in industry/warehousing development rates, and 10% uplift in office development rates	1,410,896
IW2 and OFF3	15% uplift in industry/warehousing development rates, and 15% uplift in office development rates	1,417,917
IW3 and OFF1	20% uplift in industry/warehousing development rates, and uplift in offices sufficient to accommodate extra jobs in GMFM scenario based on ONS 2012-based population projections	1,409,702
IW3 and OFF2	20% uplift in industry/warehousing development rates, and 10% uplift in office development rates	1,413,325
IW3 and OFF3	20% uplift in industry/warehousing development rates, and 15% uplift in office development rates	1,420,345

Commuting

7.96 An important consideration is the extent to which net in-commuting to Greater Manchester may change over time, and whether it is appropriate for it to increase. The 2013 GMFM forecasts that net in-commuting to Greater Manchester will rise from 16,034 in 2012 to 31,344 in 2033, which would be an increase of 15,310. The Annual Population Survey estimated net in-commuting to Greater Manchester was 22,078 in 2010 and 21,777 in 2011, and so it is possible that the 2013 GMFM estimate for 2012 may be a slight underestimate.

7.97 The increase in net in-commuting to Greater Manchester that is forecast by the 2013 GMFM would not seem particularly unexpected or unrealistic, given the size and strength of the Greater Manchester economy and the likelihood that the spatial extent of the labour market serving locations such as Manchester City Centre will continue to grow, particularly as further investments in public transport connections are delivered. However, arguments have been put forward that Greater Manchester should be seeking to avoid any increase in net in-commuting, in order to enhance its sustainability, reduce transport pressures and increase its labour market self-sufficiency.

7.98 Consequently, it is considered appropriate here to assume that net in-commuting to Greater Manchester remains constant at the 2011 Census level of 27,686, given that this is the most comprehensive and up-to-date evidence on commuting. The 2013 GMFM suggests that an increase in net in-commuting is likely by 2033, but the following calculations will assume no increase on the 2011 Census figure.

Question 35: Do you agree that it is appropriate to assume that net in-commuting to Greater Manchester remains at 2011 Census levels? If not, what assumption do you think should be made?

Resident employment rate

7.99 The last key factor in determining the impact of economic growth on housing need is the proportion of residents of working age that it is realistic to assume will be in employment by 2033. The Planning Advisory Service (PAS) advice note on objectively assessed housing need provides the following guidance on the issue:

"A common mistake in this context is to make unrealistic assumptions on the relationship between housing, population and jobs. A number of housing assessments have been criticised by Inspectors for their assumptions about economic activity rates. The issue relates especially in relation to older people, where some studies expect the increases in state pension age to produce much increased activity rates over the next 15-20 years. This reduces the population growth, and hence the household growth, that is required to support a given number of new jobs. But unrealistic figures put the emerging plan at risk. Not only could the housing assessment be unsound in itself, but also it could be inconsistent with proposals for employment land, which are also based on expected future employment."[157]

7.100 The Office for Budget Responsibility (OBR) provides employment rate forecasts for the 16+ age group, which extend 5 years into the future. The latest forecasts from March 2014 are shown in the table below, along with estimates of previous rates. The OBR also publishes these forecasts for quarters (to Q1 2019) and calendar years (to 2018/19). The 'trend employment rate' is also shown, which is what the employment rate would be if it were following long-term trends as opposed to what it actually is or is forecast to be.

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
UK employment rate 16 + (%)	58.6	58.3	58.1	58.4	58.7	59.2	59.4	59.5	59.8	59.9
UK trend employment rate 16+ (%)	60.0	60.0	60.0	60.0	60.1	60.1	60.0	60.0	60.0	59.9

7.101 Over the period 2012-2018, the OBR is forecasting an increase in the employment rate for the 16+ age group of 1.5 percentage points. The methodology used by the OBR is very important in considering the potential growth in the 16+ employment rate up to 2033, which they explain as follows:

"Over the near term, our forecast for GDP growth, together with an assessment of recent labour market data and labour market leading indicators, help to inform the path of the employment rate, participation rate, unemployment rate, household population and average weekly hours worked. …Beyond the short term, it is assumed that these variables gradually return to their underlying trend levels, with judgements about how the output cycle interacts with the labour market determining the speed at which each particular variable reverts to trend. Important aspects of this will include judgements about firms' expectations, possible lags between the labour

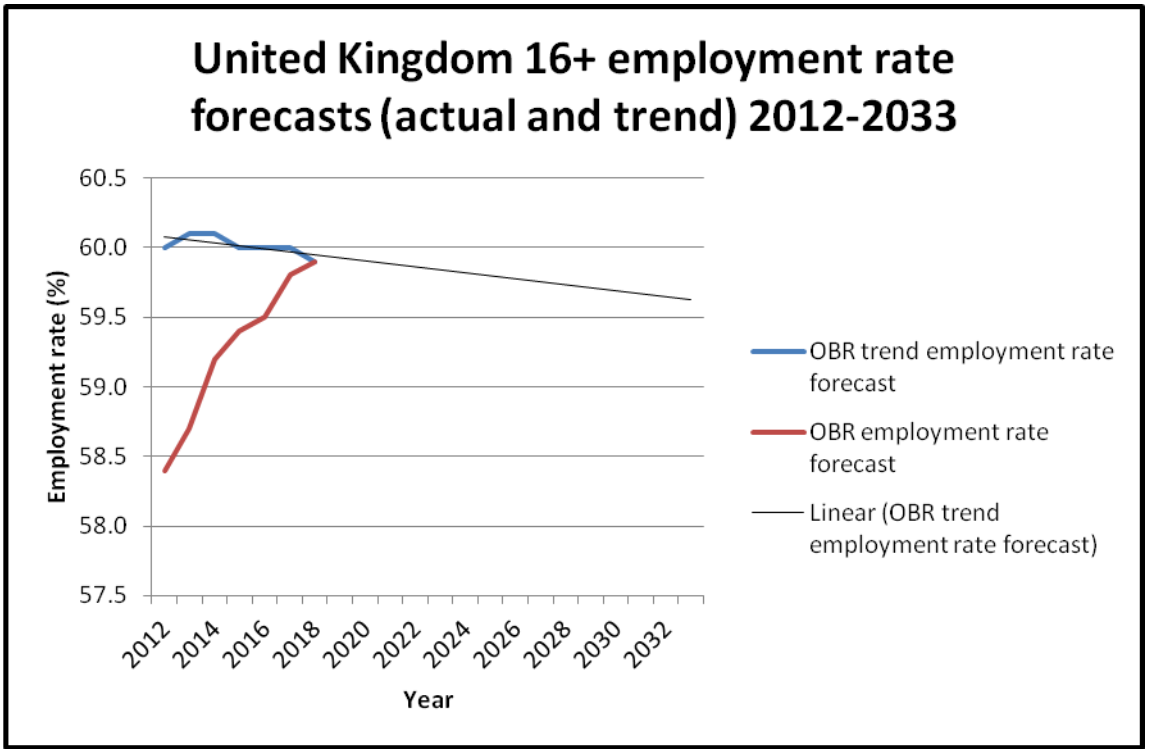
[157] Planning Advisory Service (June 2014), *Objectively Assessed Need and Housing Targets: Technical advice note*, paragraph 6.7

market and output and the speed at which sectoral change can be accommodated. A further consideration is the plausibility of the implied cyclical path for actual labour productivity: if the forecasts for output, employment and average hours worked imply an implausible path for output per worker or output per hour then this would lead us to revisit our output and labour market forecasts."[158]

7.102 The above table shows that the OBR is forecasting a return to the long-term trend (the trend employment rate) by 2018. Although further fluctuations would be expected beyond that date, potentially above as well as below trend, the assumption is that the employment rate will always continue to return to trend. The trajectory of the long-term trend is therefore important. The table above shows that a marginal increase in the trend employment rate was seen in 2013-2014, but then a very small decrease is forecast through to 2018. It would seem likely that an ageing population could result in a stabilisation or further decline, with an increase in the employment rate of the 16-64 and 65-74 age groups potentially being offset by an increase in the number of people aged 75+ who are much less likely to form part of the labour force.

7.103 In the absence of any long-term forecasts from the OBR, the graph below shows a simple straight-line extrapolation of its March 2014 forecasts through to 2033. This suggests a reduction in the trend employment rate to around 59.6% by 2033. This would point towards an increase in the UK 16+ employment rate from 58.4% in 2012 to 59.6% in 2033, equating to 1.2 percentage points. It is notable that over the first two years of the Greater Manchester Spatial Framework period, 2012-2014, the OBR identifies that there has been a 0.8 percentage point increase (from 58.4% to 59.2%), and so a long-term increase of 1.2 percentage points would appear realistic.

[158] Office for Budget Responsibility (October 2011), *Briefing paper No. 3: Forecasting the economy*, paragraphs 3.109-3.110. See also p.16-18 for an explanation of trend growth.



7.104 The realism of securing a similar or greater increase in the 16+ employment rate in Greater Manchester compared to the UK will depend in part of the relative age profiles of the two areas. The next table compares the age profile of the ONS 2012-based population projections for Greater Manchester and the United Kingdom. This indicates that the older elements are likely to form a smaller proportion of the 16+ age group in Greater Manchester than the United Kingdom as a whole, and the percentage point change in the proportion aged 75+ is similar for both geographies. Consequently, the impact of an ageing population on the potential resident employment rate for the 16+ age group would not be expected to be any more significant for Greater Manchester than for the United Kingdom as a whole. Thus, it could be expected that Greater Manchester may see an increase in its 16+ employment rate of at least 1.2 percentage points.

	ONS 2012-based subnational population projections			
Age group	2012	% of total	2033	% of total
Greater Manchester				
16-64	1,756,659	65.01	1,820,941	60.55
65-69	127,820	4.73	164,887	5.48
70-74	95,950	3.55	139,846	4.65
75+	182,192	6.74	300,377	9.99
United Kingdom				
16-64	40,880,484	64.17	42,240,073	58.64
65-69	3,345,053	5.25	4,294,953	5.96
70-74	2,475,948	3.89	3,775,397	5.24
75+	5,019,955	7.88	8,695,477	12.07

7.105 Estimates of future resident employment rates are also available from the Greater Manchester Forecasting Model (GMFM), both at the local and national level. The main GMFM output uses the resident employment rate for the 15-74 age group, and this assumes that all jobs are taken by people within that age group. However, figures are also available for the 16-64 age group on the same basis (i.e. that all jobs are taken by people within the 16-64 age group). Figures for the 16+ age group used by the OBR can be identified for Greater Manchester using the GMFM scenario tool, but comparative figures for the United Kingdom are not available. The Greater Manchester forecasts are influenced by a commuting matrix that assigns jobs to residents in different districts, as well as the fundamental economic and demographic variables that inform the UK forecast. The 2013 GMFM forecasts using these various measures are summarised in the table below.

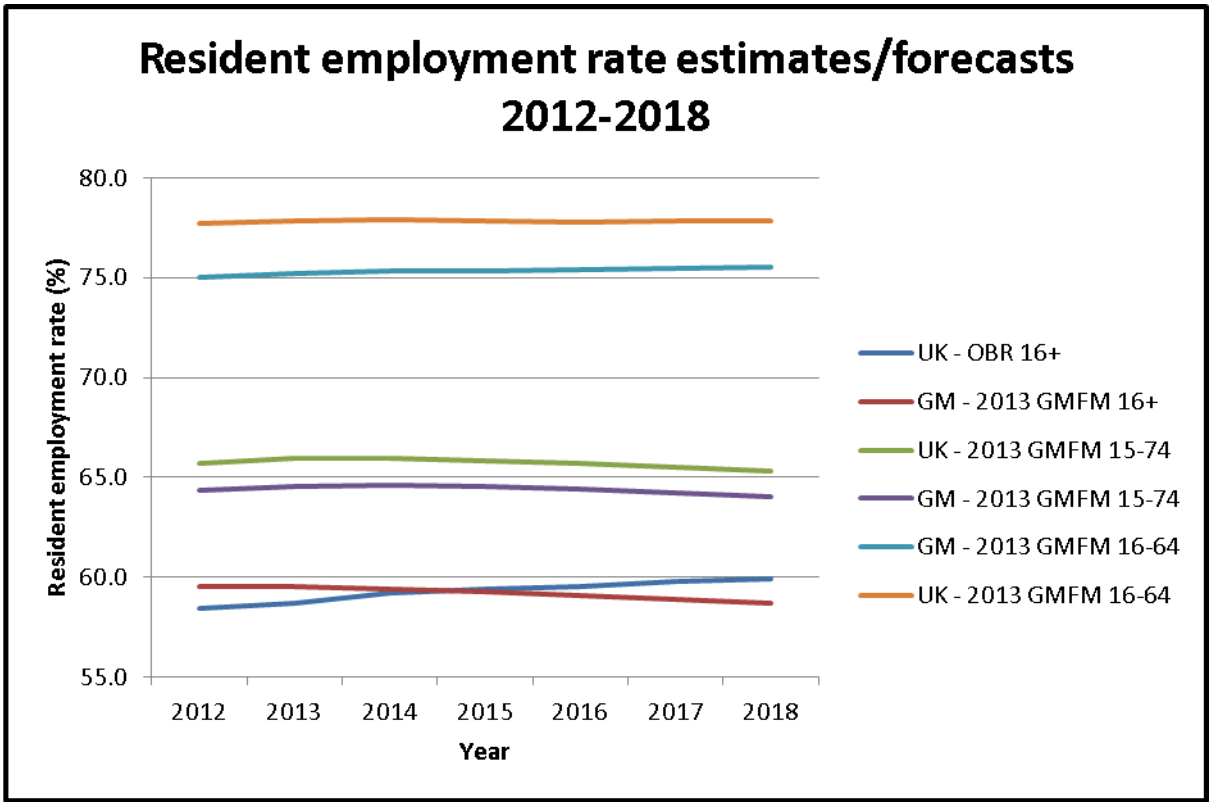
	Resident employment rate (RER) (%)		Percentage point change in RER 2012-2033
Age and area	2012	2033	
16-64			
Greater Manchester	70.11	76.87	6.76
United Kingdom	73.81	79.03	5.22
15-74			
Greater Manchester	61.15	63.46	2.31
United Kingdom	63.56	64.95	1.39
16+			
Greater Manchester	56.96	58.04	1.08
United Kingdom	N/A	N/A	N/A
Difference between Greater Manchester and United Kingdom (percentage points)			
16-64	3.70	2.16	-1.53
15-74	2.41	1.50	-0.92

7.106 It can be seen that the 2013 GMFM is forecasting an increase in the resident employment rate both at the sub-regional and national levels, with the scale of increase much more significant for the 16-64 age group than the 15-74 group. This partly reflects the changing age structure of the population, but is also a function of more jobs effectively being assumed to be taken up by a narrower age group[159]. The rate of increase is forecast to be greater at the Greater Manchester level than for the United Kingdom as a whole, which serves to close the gap between the sub-regional and national rates, though the Greater Manchester resident employment rate is still forecast to be below that of the United Kingdom in 2033 on both age group measures. The GMFM scenario based on the ONS 2012-based subnational population projections also provides a forecast for the 15-74 resident employment rate for Greater Manchester, which indicates a larger increase than the 2013 GMFM baseline

[159] The resident employment rate is simply the total resident employment in an area divided by the number of people in a particular age group, and so effectively assumes that no jobs are occupied by people outside that age group.

forecast, of 3.64 percentage points over the period 2012-2033, reaching a figure of 64.79% by 2033[160], still slightly below the forecast UK rate. This would not seem unreasonable given the scale of employment growth involved in the GMFM scenario, which may itself require a higher employment rate in order to be realised. The 2013 GMFM forecasts that there has already been a 2.04 percentage point increase in the 16-64 resident employment rate and a 1.35 percentage point increase in the 15-74 resident employment rate in the first two years of the Greater Manchester Spatial Framework period (2012-2014).

7.107 The following graph provides a comparison of the different estimates and forecasts of the Greater Manchester and United Kingdom resident employment rates for the period 2012-2018, which is the first six years of the Greater Manchester Spatial Framework period, as this period is covered by the OBR March 2014 forecast as well as the 2013 GMFM. In this context, the 2013 GMFM forecast appears slightly pessimistic, with the OBR forecast displaying more of an upward curve. Consequently, the increases in resident employment rates that are forecast by the 2013 GMFM could potentially underestimate future growth in employment rates, although it is possible that the difference between the OBR and GMFM forecasts is partly an issue of the timing of the increase rather than necessarily the scale of that increase.



7.108 The Greater Manchester Strategy specifies three primary measures that will identify whether it has been successful by 2020, one of which is that the number of people reliant on out-of-work benefits will have reduced by 12%,

[160] The GMFM scenario provides more limited outputs than the 2013 GMFM baseline forecast, and does not impact on the national forecasts.

and this will have narrowed the gap between Greater Manchester and the national average in the proportion of the working age population claiming key out-of-work benefits by 1 percentage point[161]. This target is carried through into the Growth and Reform Plan for Greater Manchester, where public service reform to reduce benefit dependency is a key theme[162]. Greater Manchester is at the forefront nationally of putting in place measures to address worklessness, and so reducing the gap to the national resident employment rate would seem not just desirable but also realistic.

7.109 In light of this, it is considered reasonable and appropriate to anticipate that the gap between the Greater Manchester and United Kingdom resident employment rates will close by around 1 percentage point over the period 2012-2033, and indeed given that the Greater Manchester Strategy is seeking to secure improvements by 2020 there may be even greater potential to close the gap. However, the significance of a reduction of the gap by 1 percentage point varies depending on the size of the age group that is being considered, with it involving bringing many more people into work if it is applied to the 16+ age group than the 16-64 group. Consequently, a reduction in the gap of more than 1 percentage point would be realistic for the narrower 16-64 age group, and less than 1 percentage point for the wider 16+ age group. These differences are consistent with the outputs of the 2013 GMFM, which forecasts a reduction in the gap between the Greater Manchester and United Kingdom resident employment rates of 0.92 percentage points for the 15-74 age group but 1.53 percentage points for the 16-64 age group. However, the GMFM scenario based on the ONS 2012-based population projections would foresee a more significant reduction in the gap for the 15-74 age group of 2.25 percentage points, and therefore could be considered quite optimistic, requiring continued progress beyond the Greater Manchester Strategy target date of 2020.

7.110 The 2013 GMFM does not provide a forecast for the 16+ age group for the United Kingdom and so the same direct comparison cannot be made. However, the 2013 GMFM forecast for Greater Manchester foresees a 1.08 percentage point increase over the period 2012-2033, whereas the above analysis of the OBR forecasts suggests that a 1.2 percentage point increase for the United Kingdom might be expected. In this context, the 2013 GMFM forecast appears quite low, particularly if the clear objective of reducing the gap between the United Kingdom and Greater Manchester rates is taken into account. It may therefore be reasonable to anticipate an increase of more than 1 percentage point in the 16+ resident employment rate of Greater Manchester over the period 2012-2033.

Resident employment rate required using the ONS 2012-based population projections

[161] Greater Manchester Combined Authority and Association of Greater Manchester Authorities (December 2013), *Stronger Together: Greater Manchester Strategy 2013*, p.69

[162] Greater Manchester Combined Authority, Greater Manchester Local Enterprise Partnership and Association of Greater Manchester Authorities (March 2014), *A Plan for Growth and Reform in Greater Manchester*, p.13

7.111 This subsection seeks to calculate what the Greater Manchester resident employment rate would need to be in 2033, based on the ONS 2012-based sub-national population projections, in order to ensure that there was sufficient working age population required for each of the employment floorspace options discussed in the previous chapter. This means that any additional demand for labour resulting from employment growth in Greater Manchester would be assumed to be delivered through an increase in the resident employment rate rather than any further net in-migration of working age population additional to that forecast by the ONS 2012-based population projections. Each of the age groups (16-64, 15-74, 16+) is tested separately.

7.112 The ONS 2012-based population projections are used to calculate the resident employment rates for each scenario, so as to maintain consistency with the household forecasts discussed earlier. The following table summarises those population projections for the relevant age groups for the period 2012-2033.

	Greater Manchester population		
	2012	2033	Change 2012-2033
Total population	2,702,209	3,007,391	305,182
Age 16-64	1,756,659	1,820,941	64,282
Age 15-74	2,014,158	2,162,326	148,168
Age 16+	2,162,621	2,426,051	263,430

7.113 The table below assesses the implication of each combination of the industry/warehousing and office floorspace options on the resident employment rate, using the different age groups for calculating the resident employment rate and the assumption that net in-commuting remains constant at the 2011 Census level of 27,686. It starts by taking the forecast total employment in 2033 (work-based people) from the earlier table, and then deducts the number of net in-commuters (27,686) in order to identify the level of resident employment required if there is no further increase in population. It then divides that figure by the number of people in the relevant age group and multiplies by 100 to give the resident employment rate as a percentage.

Options	Total employment (work-based people)	Level of resident employment required	Resident employment rate in 2033 (% by age group)			Increase in resident employment rate 2012-2033 (percentage points by age group)		
			16-64	15-74	16+	16-64	15-74	16+
IW1 and OFF1	1,405,822	1,378,136	75.68	63.73	56.81	5.57	2.59	-0.15
IW1 and OFF2	1,409,445	1,381,759	75.88	63.90	56.96	5.77	2.76	0.00
IW1 and OFF3	**1,416,465**	**1,388,779**	**76.27**	**64.23**	**57.24**	**6.16**	**3.08**	**0.29**
IW2 and OFF1	1,407,273	1,379,587	75.76	63.80	56.87	5.65	2.66	-0.09
IW2 and OFF2	1,410,896	1,383,210	75.96	63.97	57.01	5.85	2.82	0.06
IW2 and OFF3	1,417,917	1,390,231	76.35	64.29	57.30	6.24	3.15	0.35
IW3 and OFF1	1,409,702	1,382,016	75.90	63.91	56.97	5.79	2.77	0.01
IW3 and OFF2	1,413,325	1,385,639	76.09	64.08	57.12	5.99	2.94	0.16
IW3 and OFF3	1,420,345	1,392,659	76.48	64.41	57.40	6.37	3.26	0.45

7.114 It can be seen that the 6.76 percentage point increase to 76.87% in the Greater Manchester resident employment rate forecast by the 2013 GMFM for the 16-64 age group discussed above would be sufficient to accommodate all combinations of options if net in-commuting remains at the 2011 Census levels. In contrast, the 2013 GMFM forecast increase of 2.31 percentage points in the resident employment rate for the 15-74 age group would be insufficient to accommodate any of the option combinations if net in-commuting remains at the 2011 Census levels. However, the higher forecast of a 3.64 percentage point increase from the GMFM scenario based on the ONS 2012-based population projections would again be sufficient for all floorspace option combinations. In terms of the 16+ age group, hardly any change in the resident employment rate is required for several of the option combinations, and none require even a 0.50 percentage point increase and certainly not the 1.08 percentage point increase forecast by the 2013 GMFM.

7.115 Consequently, the choice of age group for identifying the resident employment rate, and the assumptions around the precise rate, impact on whether the forecast population increase over the period 2012-2033 in the ONS 2012-based population projections would be sufficient to provide the necessary labour to deliver the different employment floorspace options, or whether higher population growth might be required. However, the overall picture is that the forecast increase in the resident employment rate is likely to mean that no additional increase in working age population would be required above that being forecast in the ONS 2012-based population projections. In particular, the limited scale of increase required in the 16+ age group when compared with both the OBR and 2013 GMFM forecasts, suggests that the ONS 2012-based population projections and the various employment floorspace options would be consistent, and no additional allowance for further population growth in response to economic factors is required.

Question 36: Do you agree that it is appropriate to conclude that the population growth foreseen by the ONS 2012-based population projections would be sufficient to accommodate all of the additional jobs identified in the various scenarios? If not, what growth in the resident employment rate would you consider should be assumed?

Implications of no increase in the resident employment rate

7.116 It is clear from the forecasts and discussion above that an increase in the resident employment rate can be expected over the period 2012-2033, and that the scale of that increase in percentage points is likely to be greatest for the 16-64 age group. It would seem very unlikely that there would be no increase in the resident employment rate over that period. Nevertheless, this section provides an estimate of the additional net working age population that would be required in each of the employment floorspace scenarios if there was no increase in the resident employment rate, and what this would mean for total population and household growth over the period 2012-2033, so that the potential implications of differing employment rate assumptions can be understood.

7.117 The resident employment rates that are held steady in the calculations through the period 2012-2033 are the 2012 figures from the 2013 GMFM. The first stage in the calculation is to estimate what the level of resident employment would be in Greater Manchester in 2033 if the resident employment rate remained at the 2012 level, using the ONS 2012-based population projection. These calculations are summarised below.

Greater Manchester	Projected population in 2033	Assumed resident employment rate (%)	Calculated resident employment
Aged 16-64	1,820,941	70.11	1,276,637
Aged 15-74	2,162,326	61.15	1,322,168
Aged 16+	2,426,051	56.96	1,381,826

7.118 The next stage is to identify how many additional people of working age (for each of the age groups 16-64, 15-74 and 16+) are required compared to the ONS 2012-based population projection for Greater Manchester in 2033. This involves calculating the level of resident employment that is required, and how many people in each age group would then be needed if they had a resident employment rate remaining at the 2012 level. The ONS 2012-based population projection for the relevant age group in Greater Manchester is then subtracted to leave an identified shortfall of people in that age group. The relevant figures are shown below for the different option combinations. The figures in columns A and B are the same as in the earlier table that calculated the resident employment rate required using the ONS 2012-based population projections. The subtraction in column C uses the relevant calculated resident employment rate from the previous table. The negative numbers in the bottom third of the table show that some options could be accommodated with a reduction in the resident employment rate for the 16+ age group.

Options	Total employment work-based people (A)	Total resident employment required (A minus 27,686 net in-commuting) (B)	Additional resident employment required (B minus 1,276,637) (C)	Population aged 16-64 required (B divided by 0.7011) (D)	Shortfall in population aged 16-64 (D minus 1,820,941) (E)
IW1 and OFF1	1,405,822	1,378,136	101,498	1,965,714	144,773
IW1 and OFF2	1,409,445	1,381,759	105,122	1,970,882	149,941
IW1 and OFF3	**1,416,465**	**1,388,779**	**112,142**	**1,980,895**	**159,954**
IW2 and OFF1	1,407,273	1,379,587	102,950	1,967,784	146,843
IW2 and OFF2	1,410,896	1,383,210	106,573	1,972,952	152,011
IW2 and OFF3	1,417,917	1,390,231	113,593	1,982,966	162,025
IW3 and OFF1	1,409,702	1,382,016	105,379	1,971,248	150,308
IW3 and OFF2	1,413,325	1,385,639	109,002	1,976,417	155,476
IW3 and OFF3	1,420,345	1,392,659	116,022	1,986,430	165,489
Options	Total employment work-based people	Total resident employment required (A minus	Additional resident employment required	Population aged 15-74 required (B divided	Shortfall in population aged 15-74 (D minus

	(A)	27,686 net in-commuting) (B)	(B minus 1,322,168) (C)	by 0.6115) (D)	2,162,326) (E)
IW1 and OFF1	1,405,822	1,378,136	55,968	2,253,857	91,532
IW1 and OFF2	1,409,445	1,381,759	59,591	2,259,783	97,457
IW1 and OFF3	**1,416,465**	**1,388,779**	**66,611**	**2,271,264**	**108,938**
IW2 and OFF1	1,407,273	1,379,587	57,419	2,256,231	93,905
IW2 and OFF2	1,410,896	1,383,210	61,042	2,262,157	99,831
IW2 and OFF3	1,417,917	1,390,231	68,063	2,273,638	111,312
IW3 and OFF1	1,409,702	1,382,016	59,848	2,260,203	97,877
IW3 and OFF2	1,413,325	1,385,639	63,471	2,266,129	103,803
IW3 and OFF3	1,420,345	1,392,659	70,491	2,277,610	115,284
Options	Total employment work-based people (A)	Total resident employment required (A minus 27,686 net in-commuting) (B)	Additional resident employment required (B minus 1,381,826) (C)	Population aged 16+ required (B divided by 0.5696) (D)	Shortfall in population aged 16+ (D minus 2,426,051) (E)
IW1 and OFF1	1,405,822	1,378,136	-3,691	2,419,571	-6,480
IW1 and OFF2	1,409,445	1,381,759	-67	2,425,932	-118
IW1 and OFF3	**1,416,465**	**1,388,779**	**6,953**	**2,438,258**	**12,207**
IW2 and OFF1	1,407,273	1,379,587	-2,239	2,422,119	-3,932
IW2 and OFF2	1,410,896	1,383,210	1,384	2,428,481	2,430
IW2 and OFF3	1,417,917	1,390,231	8,404	2,440,806	14,755
IW3 and OFF1	1,409,702	1,382,016	189	2,426,383	333
IW3 and OFF2	1,413,325	1,385,639	3,813	2,432,745	6,694
IW3 and OFF3	1,420,345	1,392,659	10,833	2,445,070	19,019

7.119 The population in each group that is required in 2033 (column D above) is then translated into households by assuming that the ratio of people in that age group to the number of households in the baseline household forecasts remains the same. The ratios vary depending on which headship rates are used to translate population into households, as described earlier, and are set out below. In practice, the additional population would result in further employment growth, which in turn would require more net in-migration if there was to be no increase in the resident employment rate. No allowance has been made for this here, and so the actual population growth would be slightly higher.

Headship rates used to translate the ONS 2012-based population projections into households	Greater Manchester in 2033		
	Population in age group	Forecast households	Ratio
Age 16-64			
DCLG 2008-based headship rates	1,820,941	1,385,872	1.313931
DCLG 2011-based headship rates	1,820,941	1,325,519	1.373757
Average of the above two rates	1,820,941	1,355,696	1.343178
Age 15-74			
DCLG 2008-based headship rates	2,162,326	1,385,872	1.560263

DCLG 2011-based headship rates	2,162,326	1,325,519	1.631304
Average of the above two rates	2,162,326	1,355,696	1.594993
Age 16+			
DCLG 2008-based headship rates	2,426,051	1,385,872	1.750559
DCLG 2011-based headship rates	2,426,051	1,325,519	1.830264
Average of the above two rates	2,426,051	1,355,696	1.789525

7.120 The next table then applies those ratios to column D in the previous table to identify the total number of households required, and then subtracts the estimated number of households in 2012 (1,138,742) to give household increase figures for 2012-2033. The baseline position is also provided, which is effectively the number of households that would be expected from the ONS 2012-based population projections given certain headship rates. Once again, the table is split into three sub-sections reflecting the different age groups that can be used for calculating the resident employment rate.

		Total households in 2033			Increase in households (2012-2033)		
Options	Population **aged 16-64** required	DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates	DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates
Baseline	N/A	**1,385,872**	**1,325,519**	**1,355,696**	**247,131**	**186,778**	**216,954**
IW1 and OFF1	1,965,714	1,496,055	1,430,904	1,463,480	357,314	292,163	324,738
IW1 and OFF2	1,970,882	1,499,989	1,434,666	1,467,327	361,247	295,925	328,586
IW1 and OFF3	**1,980,895**	**1,507,609**	**1,441,955**	**1,474,782**	**368,868**	**303,214**	**336,041**
IW2 and OFF1	1,967,784	1,497,631	1,432,411	1,465,021	358,889	293,670	326,279
IW2 and OFF2	1,972,952	1,501,564	1,436,173	1,468,869	362,823	297,432	330,127
IW2 and OFF3	1,982,966	1,509,185	1,443,462	1,476,324	370,444	304,721	337,582
IW3 and OFF1	1,971,248	1,500,267	1,434,933	1,467,600	361,526	296,191	328,859
IW3 and OFF2	1,976,417	1,504,201	1,438,695	1,471,448	365,459	299,954	332,706
IW3 and OFF3	1,986,430	1,511,822	1,445,984	1,478,903	373,080	307,243	340,161
		Total households in 2033			Increase in households (2012-2033)		
Options	Population **aged 15-74** required	DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates	DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates
Baseline	N/A	**1,385,872**	**1,325,519**	**1,355,696**	**247,131**	**186,778**	**216,954**
IW1 and OFF1	2,253,857	1,444,536	1,381,629	1,413,083	305,795	242,887	274,341
IW1 and OFF2	2,259,783	1,448,334	1,385,261	1,416,798	309,593	246,520	278,056
IW1 and OFF3	**2,271,264**	**1,455,693**	**1,392,299**	**1,423,996**	**316,951**	**253,558**	**285,255**
IW2 and OFF1	2,256,231	1,446,058	1,383,084	1,414,571	307,316	244,342	275,829
IW2 and OFF2	2,262,157	1,449,856	1,386,717	1,418,286	311,114	247,975	279,545
IW2 and OFF3	2,273,638	1,457,214	1,393,755	1,425,484	318,473	255,013	286,743
IW3 and OFF1	2,260,203	1,448,604	1,385,519	1,417,061	309,862	246,777	278,320
IW3 and OFF2	2,266,129	1,452,401	1,389,151	1,420,776	313,660	250,410	282,035
IW3 and OFF3	2,277,610	1,459,760	1,396,189	1,427,975	321,018	257,448	289,233

Options	Population **aged 16+** required	Total households in 2033			Increase in household (2012-2033)		
		DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates	DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates
Baseline	N/A	**1,385,872**	**1,325,519**	**1,355,696**	**247,131**	**186,778**	**216,954**
IW1 and OFF1	2,419,571	1,382,171	1,321,979	1,352,075	243,429	183,237	213,333
IW1 and OFF2	2,425,932	1,385,805	1,325,455	1,355,630	247,063	186,713	216,888
IW1 and OFF3	**2,438,258**	**1,392,845**	**1,332,189**	**1,362,517**	**254,104**	**193,447**	**223,776**
IW2 and OFF1	2,422,119	1,383,626	1,323,371	1,353,499	244,885	184,630	214,757
IW2 and OFF2	2,428,481	1,387,260	1,326,847	1,357,054	248,519	188,106	218,312
IW2 and OFF3	2,440,806	1,394,301	1,333,581	1,363,941	255,559	194,840	225,200
IW3 and OFF1	2,426,383	1,386,062	1,325,701	1,355,882	247,321	186,960	217,140
IW3 and OFF2	2,432,745	1,389,696	1,329,177	1,359,437	250,955	190,435	220,695
IW3 and OFF3	2,445,070	1,396,737	1,335,911	1,366,324	257,995	197,169	227,582

7.121 This approach clearly gives a very wide range of potential household growth figures for Greater Manchester over the period 2012-2033, and the age group that is used to calculate the resident employment rate has a substantial impact on the increase in households that is identified. As noted above, an increase in the resident employment rate is likely for all age groups. The percentage point increase in the rate is likely to be most significant for the 16-64 age group, and it is that age group that produces the highest household growth figures if its resident employment rate is held steady. Holding the 15-74 age group's resident employment rate steady also generates significantly more households than the baseline position, whereas again in practice a considerable increase in that age group's resident employment rate would be expected. Consequently, much lower household growth would seem likely than many of the figures in the table would suggest, even if the increases in resident employment rates in the previous subsection were not fully realised.

Implications of the 2013 GMFM forecast increase in the 15-74 employment rate

7.122 As discussed earlier, the forecast increases in the resident employment rate generally seem to be high enough so that the ONS 2012-based population projection for Greater Manchester would result in sufficient working age population to fill all of the employment opportunities in all of the floorspace options. The exception to this is the 15-74 age group, where the 2013 GMFM baseline forecast of its resident employment rate would lead so insufficient working age population in 2033, although the GMFM baseline scenario would suggest that the resident employment rate could increase by enough to ensure that there would be sufficient labour in all floorspace options. Given this, the above calculations are repeated below on the basis that the resident employment rate for the 15-74 age group increases in line with the 2013 GMFM baseline forecast, from 61.15% in 2012 to 63.46% in 2033. The relevant tables are shown below.

	Projected population in 2033	Assumed resident employment rate (%)	Calculated resident employment
Aged 15-74	2,162,326	63.46	1,372,130

Options	Total employment work-based people (A)	Total resident employment required (A minus 27,686 net in-commuting) (B)	Additional resident employment required (B minus 1,372,130) (C)	Population aged 15-74 required (B divided by 0.6346) (D)	Shortfall in population aged 15-74 (D minus 2,162,326) (E)
IW1 and OFF1	1,405,822	1,378,136	6,006	2,171,790	9,465
IW1 and OFF2	1,409,445	1,381,759	9,629	2,177,500	15,175
IW1 and OFF3	**1,416,465**	**1,388,779**	**16,649**	**2,188,563**	**26,238**
IW2 and OFF1	1,407,273	1,379,587	7,457	2,174,078	11,752
IW2 and OFF2	1,410,896	1,383,210	11,081	2,179,788	17,462
IW2 and OFF3	1,417,917	1,390,231	18,101	2,190,851	28,525
IW3 and OFF1	1,409,702	1,382,016	9,886	2,177,905	15,579
IW3 and OFF2	1,413,325	1,385,639	13,510	2,183,615	21,290
IW3 and OFF3	1,420,345	1,392,659	20,530	2,194,678	32,353

Options	Population aged 15-74 required	Total households in 2033			Increase in household (2012-2033)		
		DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates	DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates
Baseline	N/A	**1,385,872**	**1,325,519**	**1,355,696**	**247,131**	**186,778**	**216,954**
IW1 and OFF1	2,171,790	1,391,938	1,331,321	1,361,630	253,197	192,580	222,888
IW1 and OFF2	2,177,500	1,395,598	1,334,822	1,365,210	256,856	196,080	226,468
IW1 and OFF3	**2,188,563**	**1,402,688**	**1,341,603**	**1,372,146**	**263,947**	**202,862**	**233,404**
IW2 and OFF1	2,174,078	1,393,404	1,332,723	1,363,064	254,663	193,982	224,322
IW2 and OFF2	2,179,788	1,397,064	1,336,224	1,366,644	258,322	197,482	227,902
IW2 and OFF3	2,190,851	1,404,154	1,343,005	1,373,580	265,413	204,264	234,838
IW3 and OFF1	2,177,905	1,395,857	1,335,070	1,365,464	257,116	196,328	226,722
IW3 and OFF2	2,183,615	1,399,517	1,338,570	1,369,044	260,775	199,829	230,302
IW3 and OFF3	2,194,678	1,406,608	1,345,352	1,375,980	267,866	206,610	237,238

7.123 As expected, this approach shows that higher household growth than the baseline figure would be required, but this is much less substantial than the scenario where the resident employment rate was held steady.

Translating households into dwellings

7.124 The last stage in the calculations is to translate the forecast increase in households to a dwelling figure. Two factors are normally taken into account when doing so, namely vacancy levels and second homes.

7.125 The discussion of housing demand earlier in this note estimated, from DCLG live tables 125 and 615, that 3.16% of dwellings in Greater Manchester in 2013 were vacant. Slightly lower vacancy rates are normally assumed in new dwellings, but very low vacancy rates are generally seen as an indicator of inadequate housing supply. In order to avoid underestimating the need for new dwellings, a vacancy rate in new dwellings of 3% will be assumed here.

Question 37: Do you agree that it is appropriate to assume that 3% of new dwellings will be vacant? If not, what figure do you think should be used?

7.126 The data from the 2011 Census on second homes relates to residents rather than dwellings, whereas information is available from the 2001 Census on the number of dwellings that are used as second homes. The figures involved in the 2011 Census are massively higher than those from the 2001 Census, even when the difference between residents and dwellings is taken into account. The 2011 Census definition is "all residents with a second address in the area who are usually resident in another area", and therefore this will include people staying in dwellings that are the primary residences of other people as well as dwellings that are only used as second homes. It may also include students living in purpose-built student accommodation. The 2011 Census subdivides the information into three categories – working, holiday and other. For the purposes of identifying the number of second homes that should be assumed within the new dwelling stock, it is considered that only the working and holiday categories should be taken into account (as the 'other' category is predominantly students). This would suggest that around 0.19% of dwellings in Greater Manchester are being used as second homes, if the relationship between residents and dwellings is proportionate. The 2001 Census identified that 0.14% of dwellings were in use as second homes at that time. The difference between these two figures could be due to an increase in the proportion of second homes, or could partly be due to the method of calculation.

7.127 Data from Council Tax records[163] indicates that, as of October 2012, 0.40% of all dwellings in Greater Manchester on the valuation list were classed as second homes, and 0.42% of all chargeable dwellings. This suggests that the proportion of second homes could be higher than recorded in the Census. Consequently, in order to avoid the potential for underestimating future housing demand in Greater Manchester, it is assumed here that 0.5% of all new dwellings will be used as second homes.

Question 38: Do you agree that it is appropriate to assume that 0.5% of new dwellings will be used as second homes? If not, what figure do you think should be used?

7.128 On this basis, the increase in households can be translated into a required increase in dwellings by dividing the number of households by 0.965. The following table takes the household growth figures from the previous tables (both the table holding the resident employment rate steady for the three age

[163] Available from https://www.gov.uk/government/publications/council-taxbase-2012-in-england

groups, and the table showing the implications of an increase in the resident employment rate for the 15-74 age group in line with the 2013 GMFM baseline forecast) and applies this calculation in order to identify the associated dwelling increase that would be needed for each scenario. Once again, it is important to note that many of these scenarios will be a significant overestimate of housing need, as they do not take into account likely increases in resident employment rates. However, they help to understand the implications of making different assumptions about resident employment rates, and the significant impact that this has on the identified housing need.

	Option combinations assuming the 2012 resident employment rate for the 16-64 age group remains unchanged to 2033 (Greater Manchester)					
	Total dwellings (2012-2033)			Dwellings per annum (2012-2033)		
Options	DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates	DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates
Baseline	**256,094**	**193,552**	**224,823**	**12,195**	**9,217**	**10,706**
IW1 and OFF1	370,273	302,759	336,516	17,632	14,417	16,025
IW1 and OFF2	374,349	306,658	340,504	17,826	14,603	16,214
IW1 and OFF3	**382,247**	**314,211**	**348,229**	**18,202**	**14,962**	**16,582**
IW2 and OFF1	371,906	304,321	338,113	17,710	14,491	16,101
IW2 and OFF2	375,982	308,219	342,101	17,904	14,677	16,291
IW2 and OFF3	383,879	315,773	349,826	18,280	15,037	16,658
IW3 and OFF1	374,638	306,934	340,786	17,840	14,616	16,228
IW3 and OFF2	378,714	310,833	344,773	18,034	14,802	16,418
IW3 and OFF3	386,612	318,386	352,499	18,410	15,161	16,786
	Option combinations assuming the 2012 resident employment rate for the 15-74 age group remains unchanged to 2033 (Greater Manchester)					
	Total dwellings (2012-2033)			Dwellings per annum (2012-2033)		
Options	DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates	DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates
Baseline	**256,094**	**193,552**	**224,823**	**12,195**	**9,217**	**10,706**
IW1 and OFF1	316,886	251,697	284,291	15,090	11,986	13,538
IW1 and OFF2	320,822	255,461	288,141	15,277	12,165	13,721
IW1 and OFF3	**328,447**	**262,754**	**295,601**	**15,640**	**12,512**	**14,076**
IW2 and OFF1	318,462	253,205	285,833	15,165	12,057	13,611
IW2 and OFF2	322,398	256,969	289,683	15,352	12,237	13,794
IW2 and OFF3	330,023	264,262	297,143	15,715	12,584	14,150
IW3 and OFF1	321,101	255,728	288,414	15,291	12,178	13,734
IW3 and OFF2	325,036	259,492	292,264	15,478	12,357	13,917
IW3 and OFF3	332,662	266,785	299,723	15,841	12,704	14,273
	Option combinations assuming the 2012 resident employment rate for the 16+ age group remains unchanged to 2033 (Greater Manchester)					
	Total dwellings (2012-2033)			Dwellings per annum (2012-2033)		
Options	DCLG 2008-	DCLG 2011-	Average DCLG	DCLG 2008-	DCLG 2011-	Average DCLG

	based headship rates	based headship rates	headship rates	based headship rates	based headship rates	headship rates
Baseline	**256,094**	**193,552**	**224,823**	**12,195**	**9,217**	**10,706**
IW1 and OFF1	252,258	189,883	221,071	12,012	9,042	10,527
IW1 and OFF2	256,024	193,485	224,755	12,192	9,214	10,703
IW1 and OFF3	**263,320**	**200,464**	**231,892**	**12,539**	**9,546**	**11,042**
IW2 and OFF1	253,767	191,326	222,546	12,084	9,111	10,597
IW2 and OFF2	257,532	194,928	226,230	12,263	9,282	10,773
IW2 and OFF3	264,828	201,906	233,367	12,611	9,615	11,113
IW3 and OFF1	256,291	193,741	225,016	12,204	9,226	10,715
IW3 and OFF2	260,057	197,342	228,699	12,384	9,397	10,890
IW3 and OFF3	267,353	204,321	235,837	12,731	9,730	11,230
	Option combinations assuming resident employment rate for the 15-74 age group is 63.46% in 2033 (Greater Manchester)					
	Total dwellings (2012-2033)			Dwellings per annum (2012-2033)		
Options	DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates	DCLG 2008-based headship rates	DCLG 2011-based headship rates	Average DCLG headship rates
Baseline	**256,094**	**193,552**	**224,823**	**12,195**	**9,217**	**10,706**
IW1 and OFF1	262,380	199,565	230,972	12,494	9,503	10,999
IW1 and OFF2	266,172	203,192	234,682	12,675	9,676	11,175
IW1 and OFF3	**273,520**	**210,219**	**241,870**	**13,025**	**10,010**	**11,518**
IW2 and OFF1	263,899	201,018	232,458	12,567	9,572	11,069
IW2 and OFF2	267,692	204,645	236,168	12,747	9,745	11,246
IW2 and OFF3	275,039	211,672	243,356	13,097	10,080	11,588
IW3 and OFF1	266,441	203,449	234,945	12,688	9,688	11,188
IW3 and OFF2	270,234	207,076	238,655	12,868	9,861	11,365
IW3 and OFF3	277,581	214,104	245,843	13,218	10,195	11,707

Conclusions on the objectively assessed housing need for Greater Manchester

7.129 In the absence of any up-to-date long-term household projections from the Department for Communities and Local Government, it is considered that the recently published ONS 2012-based subnational population projections provide the most appropriate basis on which to identify Greater Manchester's objectively assessed housing need. However, this assessment will need to be updated when DCLG publishes its 2012-based subnational household projections in the coming months.

7.130 In order to translate the ONS 2012-based population projections into household projections, it is necessary to estimate the proportion of the population that lives in households and then to apply headship rates to that population. It is assumed here that the population that does not live in households (often referred to as the institutional population) is the same up to 2021 as that identified in the ONS 2011-based interim subnational population projections and then increases on a straight-line extrapolation. An analysis

undertaken by the TCPA discussed earlier suggests that the headship rates used in the DCLG 2011-based subnational household projections are likely to be an underestimate of future household formation, as they continue what are likely to be temporary impacts of the recession, whereas the headship rates from the DCLG 2008-based subnational household projections are likely to be an overestimate as they do not take account of the 2011 Census and structural changes in the population resulting from recent international immigration. Consequently, it is considered that an approach that applies the 2011-based rates initially and then assumes a return by 2033 to an average of the 2011-based and 2008-based rates would be most appropriate. However, figures have been given above for scenarios involving using just the 2011-based headship rates or just the 2008-based rates for comparative purposes.

7.131 There is net in-commuting to Greater Manchester, and this has the effect of reducing the working age population that needs to live within Greater Manchester in order to ensure that there is sufficient labour to fill all of the jobs in the sub-region. Although there are various estimates of the scale of that net in-commuting, the recently published 2011 Census data is the most comprehensive and up-to-date. This identifies net in-commuting to Greater Manchester of 27,686 people. It is likely that the level of net in-commuting will fluctuate over time, and the 2013 GMFM forecasts an increase over the period 2012-2033. However, it is considered appropriate to assume that net in-commuting remains at the 2011 Census level up to 2033, because this does not then make any assumption that districts outside Greater Manchester will provide more labour to fill jobs located within Greater Manchester and so does not impact on their housing demand.

7.132 The resident employment rate that is assumed to apply in 2033 has a significant impact on the working age population that is required in Greater Manchester to fill all of the jobs located in Greater Manchester, taking into account the aforementioned assumption on net in-commuting, which in turn has considerable implications for the objectively assessed housing need. There are various ways in which the resident employment rate can be measured, for example using the 16-64 age group, the 15-74 age group or the 16+ age group. All three of these age groups are forecast to see a significant increase in their resident employment rate, both at the Greater Manchester and United Kingdom levels. Given the very high priority afforded to reducing working-age benefit dependency in Greater Manchester, as identified in both the Greater Manchester Strategy and the Growth and Reform Plan, it is considered reasonable to assume that the gap between the Greater Manchester and United Kingdom resident employment rates will reduce. The 2013 GMFM forecasts an increase in the resident employment rates in Greater Manchester for all of the 16-64, 15-74 and 16+ age groups. The forecast increase for the 16-64 and 16+ age groups would ensure that there were sufficient people of working age in the ONS 2012-based subnational population projections for Greater Manchester in 2033 to fill all of the jobs in Greater Manchester, taking into account the commuting assumption, for all combinations of the options discussed in the previous chapter relating to increasing the development rates for industry/warehousing and office floorspace. The 2013 GMFM baseline forecast growth in the resident

employment rate for the 15-74 age group would not be sufficient, and either additional in-migration would be required or an increase of up to 3.26 percentage points (rather than the 2.31 percentage points in the baseline forecast) would be required depending on the uplift in employment floorspace development rates that was being sought. However, the GMFM scenario based on the ONS 2012-based population projections, which has fed into the employment floorspace analysis, forecasts a higher growth of 3.64 percentage points in the resident employment rate of the 15-74 age group, and this would result in no further net in-migration being required in addition to that underpinning the ONS population projections.

7.133 The preferred combination of option IW1 for industrial and warehousing floorspace (an uplift of 12% on past development rates) and OFF3 for office floorspace (an uplift of 15% on past development rates) would require an increase in the resident employment rate of 6.16 percentage points in the 16-64 age group, 3.08 percentage points in the 15-74 age group, and 0.29 percentage points in the 16+ age group, if there was to be no requirement for additional working age population growth above that foreseen in the ONS 2012-based population projections. In the context of the forecasts available, including those from the Office for Budget Responsibility, the significant increase in the resident employment rate that is already thought to have taken place over the period 2012-2014, and the measures being put in place across Greater Manchester to tackle worklessness, such increases would seem a reasonable and realistic prospect. Scenarios based on lower increases or no change in the resident employment rate would therefore be expected to overestimate the need for housing in Greater Manchester.

7.134 Consequently, it is considered that **Greater Manchester's objectively assessed need for housing is 224,823 net additional dwellings over the period 2012-2033, equating to an average of 10,706 net additional dwellings per annum**.

Question 39: Do you agree that 224,823 net additional dwellings is Greater Manchester's objectively assessed housing need for the period 2012-2033? If not, what do you consider the housing need is, and why?

Past performance in delivering new housing

7.135 The aforementioned objectively assessed need for housing of 224,823 net additional dwellings relates to the period 2012-2033. However, figures are available for completions for the year 2012/2013, and so the remaining need for the period 2013-2033 can be calculated. Districts reported the completion of 3,700 net additional dwellings in 2012/2013, and deducting this from the above figure for the period 2012-2033 would give a remaining housing need of 221,123 net additional dwellings for the period 2013-2033, equating to an average of 11,056 net additional dwellings per annum.

7.136 The methodology used here for identifying the objectively assessed need for housing uses a base date of 2012, and takes into account potential indicators

of any existing undersupply of housing. Consequently, past performance against housing targets, such as those set by the former Regional Spatial Strategy for the North West, is not relevant and should not be taken into account in identifying future housing requirements. However, paragraph 47 of the National Planning Policy Framework suggests that it may be relevant when considering whether a 5% or 20% buffer is required in the five-year housing land supply, and this will be for individual local authorities to assess once the district figures have been identified at the next stage of the Greater Manchester Spatial Framework.

Question 40: Do you agree that no allowance should be made for past performance against previous housing targets such as the Regional Spatial Strategy?

7.137 If the objectively assessed need for housing was met in full then this would increase the number of dwellings in Greater Manchester by 19%[164], or an average of 0.84% per annum, which is clearly a very significant increase in the scale of the sub-region over the space of two decades. The table below compares the per annum increase seen in Greater Manchester between the last three censuses, with comparator information for the North West and England.

	Average % increase per annum in number of dwellings (based on 1991, 2001 and 2011 Censuses)		
	1991-2001	2001-2011	1991-2011
Greater Manchester	0.38	0.72	0.55
North West	0.53	0.66	0.59
England	0.75	0.80	0.78

7.138 In this context, the increase in dwellings of 0.84% per annum over a prolonged period that is implied by the objectively assessed need for housing would appear high. It is significantly above what has been seen at the sub-regional and regional levels over the last two decades, and is also above the national average.

Question 41: Is there any other evidence which you believe should be considered when determining the Greater Manchester requirement for housing land?

[164] The 2011 Census recorded 1,170,929 dwellings in Greater Manchester. The ten local authorities recorded 3,394 completions in 2011/2012. This suggests a total dwelling stock of 1,174,323 in 2012.

APPENDIX A – COMPLETE LIST OF ALL QUESTIONS

Question 1: Do you agree with the proposed scope of the document outlined above? Do you think that anything else should be included within its scope and, if so, what?

Question 2 : What do you think should be the end date of the GMSF?

Question 3: Do you agree with the proposed process? If not, how do you think it should be amended?

Question 4: Do you agree with the proposed approach to consultation? If not, what do you think we should be doing differently and how?

Question 5: Do you agree that the vision from the Greater Manchester Strategy should form the basis of the Greater Manchester Spatial Framework? Please identify anything else that you think should be included in the vision for the GMSF.

Question 6: Do you agree with the four principles for identifying the area of assessment? If not, what approach would you suggest?

Question 7: Do you agree that Greater Manchester is the appropriate unit of analysis for identifying employment land requirements? If not, what geographical area would you suggest would be the appropriate unit of analysis and why?

Question 8: Do you agree that Greater Manchester is the appropriate unit of analysis for identifying housing land requirements? If not, what geographical area would you suggest would be the appropriate unit of analysis and why?

Question 9: These are general questions rather than specific to this section. What analysis do you think should take place at the next stage in relation to sub-markets within Greater Manchester and potentially extending into neighbouring districts? Are you aware of any specific sub-markets that it will be particularly important to consider and, if so, what do consider are the boundaries and issues for that area?

Question 10: Do you think that the 2013 GMFM scenario based on the ONS 2012-based subnational population projection for Greater Manchester (referred to in the tables above as '2013 GMFM higher population growth') provides a reasonable basis on which to plan? If not, what forecast do you think should be used and why?

Question 11: Do you think that Greater Manchester should be seeking to attract more regional and pan-regional employment and investment functions? If so, what type of activities do you think could be captured and where?

Question 12: Do you have any other industrial and warehousing market information that should be taken into account?

Question 13: Do you have any other office market information that should be taken into account?

Question 14: Do you agree that these are the key attributes/opportunities that could help to boost Greater Manchester's economic competitiveness? If not, what other key attributes/opportunities should be taken into account?

Question 15: Do you agree that it is appropriate to assume that the continuation of past development rates for both new office floorspace and new industrial and warehousing would be consistent with the 2013 GMFM baseline employment forecasts? If not, what assumption do you think should be made?

Question 16: Do you agree that it is appropriate to assume an average 10% vacancy rate in new employment floorspace? If not, what figure do you think should be used, and why?

Question 17: Do you agree that it is appropriate to assume an average office job density of 14m^2 gross internal area per full-time equivalent employee? If not, what figure do you think should be used, and why?

Question 18: Do you agree that it is appropriate to assume an average industrial and warehousing job density of 59m^2 gross internal area per full-time equivalent employee? If not, what figure do you think should be used, and why?

Question 19: Do you agree that it is appropriate to assume an average 48.8% displacement rate for jobs in any new employment floorspace provided above past development rates? If not, what figure do you think should be used, and why?

Question 20: Do you agree that a 12% uplift in industrial and warehousing development rates compared to the average over the period 2004-2012 is the minimum that Greater Manchester should be planning for over the period 2012-2033?

Question 21: Do you agree with the three options for industrial and warehousing floorspace provision that have been presented? If not, what other options do you think should be considered?

Question 22 Do you agree that Option IW1 is the most appropriate basis on which to plan?

Question 23: Do you agree that an average plot ratio of 35% is appropriate for new industrial and warehousing provision? If not, what figure do you think should be used?

Question: 24 Do you agree with the three options for office floorspace provision that have been presented? If not, what other options do you think should be considered?

Question 25: Do you agree that Option OFF3 is the most appropriate basis on which to plan?

Question 26: Do you agree that the use of an average plot ratio for offices would be misleading? If not, what figure do you think should be used?

Question 27: Do you agree with our assessment of the industrial and warehousing floorspace requirement for Greater Manchester over the period 2012 – 2033? If no, what would you suggest an alternative assessment would be and how would you calculate this alternative?

Question 28: Do you agree with our assessment of the office floorspace requirement for Greater Manchester over the period 2012 – 2033? If no, what would you suggest an alternative assessment would be and how would you calculate this alternative?

Question 29: Are there any variables which we have not used in the technical document which you believe should be included in calculating future industry/warehousing and office provision? If yes, can you please advise what these variables are and the source of them.

Question 30: Do you agree that the evidence suggests that no adjustment needs to be made to the migration assumptions in the ONS 2012-based population projections? If not, what alternative scenarios do you think should be tested?

Question 31: Do you agree that no allowance should be made for the unattributable population change?

Question 32: Do you agree that there is insufficient evidence from the market signals to make an upward adjustment to Greater Manchester's housing requirement? If you think some such adjustment is required, how much and why?

Question 33: Are there any other issues that should be taken into account when considering the potential impacts of higher economic growth on household growth?

Question 34: Do you think that a job multiplier of 1.38 should be applied to all employment sectors? If not, what figure would you suggest?

Question 35: Do you agree that it is appropriate to assume that net in-commuting to Greater Manchester remains at 2011 Census levels? If not, what assumption do you think should be made?

Question 36: Do you agree that it is appropriate to conclude that the population growth foreseen by the ONS 2012-based population projections would be sufficient

to accommodate all of the additional jobs identified in the various scenarios? If not, what growth in the resident employment rate would you consider should be assumed?

Question 37: Do you agree that it is appropriate to assume that 3% of new dwellings will be vacant? If not, what figure do you think should be used?

Question 38: Do you agree that it is appropriate to assume that 0.5% of new dwellings will be used as second homes? If not, what figure do you think should be used?

Question 39: Do you agree that 224,823 net additional dwellings is Greater Manchester's objectively assessed housing need for the period 2012-2033? If not, what do you consider the housing need is, and why?

Question 40: Do you agree that no allowance should be made for past performance against previous housing targets such as the Regional Spatial Strategy?

Question 41: Is there any other evidence which you believe should be considered when determining the Greater Manchester requirement for housing land?

Question 42: Do you generally agree with our interpretation of the evidence that has been presented throughout the GMSF report?

Question 43: Any further comments?