West of England Economic Development Needs Assessment (EDNA)

West of England Partnership

March 2016

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Executive summary

1. Introduction

1.1. Atkins was commissioned in 2015 by the four Unitary Authorities (UAs) the West of England (WoE) area (Bristol City Council, South Gloucestershire, North Somerset and Bath and North East Somerset) to undertake an Economic Development Needs Assessment (EDNA). In early 2016 Atkins was re-commissioned to 'refresh' the EDNA to take account of newly published employment forecasts. This study assesses employment land demand and supply characteristics and trends for the appropriate Functional Economic Area (FEMA) for the West of England.

2. Purpose of Study

2.1. The EDNA provides a robust assessment of the future objectively assessed economic development needs across the West of England area. This assessment is also performed for the individual districts that make up the WoE area. The EDNA is a strategic study that does not aim to pre-empt future spatial planning decisions but rather it provides an evidence base to inform spatial planning matters in the WoE.

2.2. While the study assesses employment projections and future trends for all types of employment including agriculture, retail, health, education, leisure etc., the study only projects demand for land in the B-class business uses (industrial, warehousing and office uses) as per NPPF and national guidance (PPG)[1.] Ultimately the evidence and findings of the study will help to feed into the evolving Joint Spatial Plan (JSP) for the West of England and the UA Local Plan reviews.

2.3. The key study objectives are to;

- Assess and define the FEMA operating in the West of England and any sub areas within it and identify any cross-border issues relating to the provision of employment land.
- Develop an understanding of the current economic, employment land and business situation, by sector and geographical area based on a combination of research techniques including capturing the views of stakeholders, market agent and local businesses.
- Provide economic growth and employment land use projections to 2036
- Perform a high level assessment of existing and future supply of land available for economic development needs and its sufficiency and suitability to meet identified needs.
- Produce a gap analysis and develop conclusions that could help the West of England develop policies to meet the future growth aspirations of the area.

3. Methodology

3.1. The study takes into account appropriate engagement conforming to the Duty to Co-operate principle from adjacent and nearby authorities. It complies with the National Planning Policy Framework (NPPF) and the methodology follows that set out in the National Planning Practice Guidance (PPG).

3.2. The methodology employs a combination of 'top down' data and quantitative analysis with 'bottom up' market intelligence gained through a consultation exercise. The consultation exercise includes a workshop with market agents, developers and stakeholders. Agents were also contacted via email and telephone.

[1] This is compliant with the NPPF and PPG. The evidence base supporting spatial planning decisions on retail and leisure uses is typically covered by retail/leisure/town centre studies. Spatial planning for other public uses generating employment, such as hospitals, schools and colleges is generally dealt with on an individual basis.

3.3. After assessing the socio-economic and policy context of the WoE the study defines the appropriate Functional Economic Market Area for the West of England area. Following this the economic development needs are identified over the planning period within the WoE FEMA. Data on employment land supply characteristics are assessed and a physical site survey of key employment areas was conducted. This allowed a picture to be built up of total WoE employment land supply and sites that have potential to be developed over the planning period. Finally, forecast demand is compared with available supply. This allows conclusions to be made on whether the quantitative and qualitative supply of WoE sites can meet projected future demand. This strategic evidence base will feed into the evolving WoE JSP.

4. West of England Context

4.1. The study assesses existing policy, evidence base and area's socio-economic profile. It concludes that WoE is a relatively vibrant economic area within the UK with good potential for future economic growth. This growth potential is recognised in in the WELEP Strategic Economic Plan (SEP) and the spatial policies of the four UA's Core Strategies. However, the evidence suggests that there are pockets of significant deprivation, particularly in parts of South and North Central Bristol and Weston-super-Mare. This deprivation creates an impetus for continuing spatial, economic and social policies that seek to generate additional employment and economic development opportunities. This economic growth should also seek to benefit all communities across the WoE

4.2. The WoE area has an established concentration of high growth and innovative sectors such as high tech manufacturing and those linked to the knowledge economy. For example, 6 of the 10 top WoE companies are in the Professional, Scientific and Business Services sectors and the WELEP area is in the top 25% of LEP areas in terms of patents registered. The WoE has a large population of highly educated people. These positive elements if harnessed effectively should allow the WoE to grow its economy over the next twenty years.

4.3. However, there are some spatial and socio-economic issues that that should be addressed if the WoE's potential is to be fully realised. The key issues identified in the study include the following:

- Avonmouth/Severnside - Significant infrastructure constraints estimated to cost around £110 million need to be addressed if development is to be unlocked and the full economic potential of the area is to be realised.

- South Bristol and Fringe – South Bristol and Fringe is a relatively deprived area within the WoE context and has a relative dearth of employment space, despite being well located near the Bristol urban area and close to Bristol Airport. This situation represents a degree of market failure. To address this issue there is potential to stimulate demand through investment in key infrastructure and planning policy support for additional employment land provision.

- Education and Skills – The WoE FEMA has a relative issue of low educational and skills attainment. Based on the 2013 GCSE and A Level results Bristol City education authority was in the bottom 6% nationally (141 out of 151) and consultees reported a relative issue of skills shortage for manufacturing, transport and construction sectors particularly. This skills gap could hinder the growth potential of the WoE if not addressed as some employers may seek to locate in other areas with better availability of skilled workers.

5. Functional Economic Market Area (FEMA)

5.1. The relevant FEMA for the WoE is assessed based on a combination of analysis of travel to work patterns (TTWA), supply chain linkages, transport networks, retail catchments and existing administrative and policy areas. Consultation with stakeholders working 'on the ground' also forms an important part of the FEMA analysis.

5.2. On balance the relevant FEMA for the WoE was considered to include all four WoE UAs. Careful consideration was given to whether Bath should be considered a separate FEMA as it

is its own Housing Market Area (HMA). Also, whether North Somerset/Weston should be a separate FEMA based on the fact that it is a standalone TTWA.

5.3. However, the analysis conducted in the study considers that on balance Bath and North Somerset/Weston should be sub-areas within a wider WoE FEMA rather than stand-alone FEMAs. This is because the critical economic mass and key supply chain linkages in the WOE lies within the wider WoE/Bristol city region rather than a fragmented collection of smaller economic sub-markets. It was concluded that fragmenting the WoE into a series of smaller FEMAs could potentially hinder BANES's and North Somerset's economic development needs as well as the WoE as a whole. This view corresponds to the Bristol City Region 'City Deal' published by the UK Government in 2012, which said:

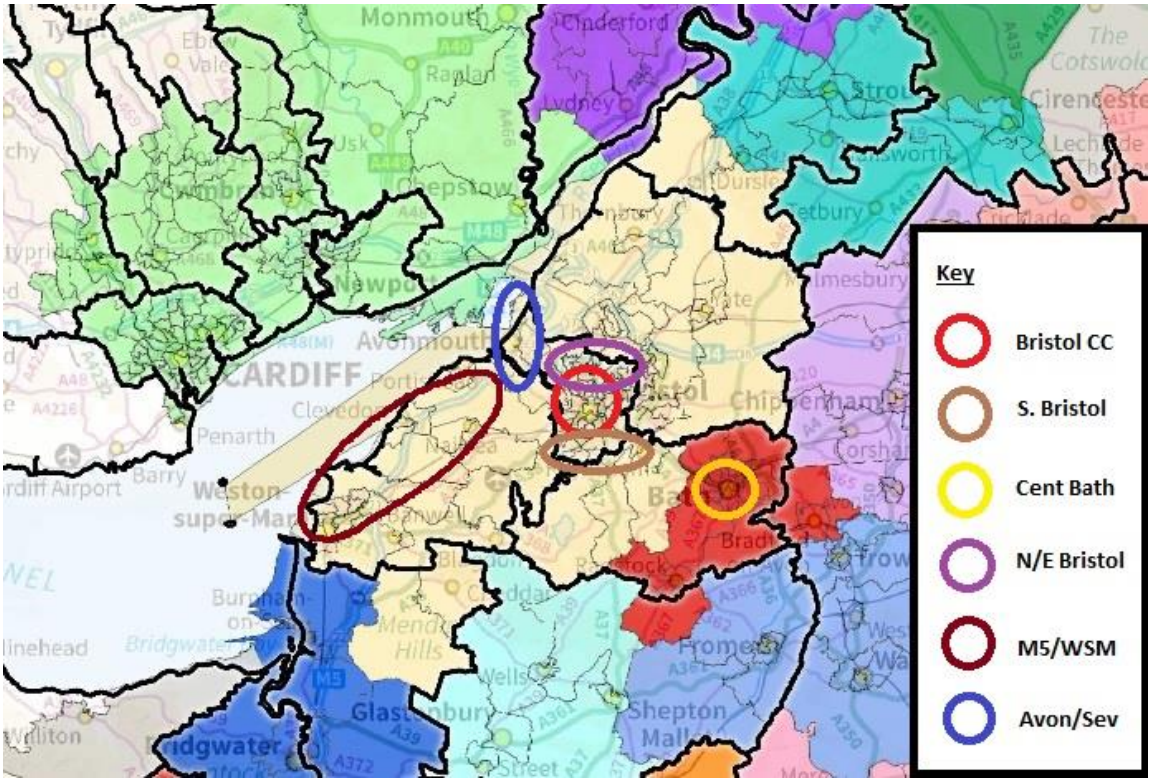
> '*The rationale behind the four local authorities of Bath & NE Somerset, Bristol, North Somerset and South Gloucestershire and working together, is firmly rooted in the economic realities of the city region.* ***The West of England geography is a functioning economic area****, boasting over 89% economic containment*'[2]

5.4. FEMA sub-areas, which contain similar supply and demand characteristics but not distinct enough to warrant a standalone FEMA, were agreed by consultees to be;

[2] WoE Bristol City Deal (2012) p5

- North/East Bristol Fringe;
- Avonmouth/Severnside;
- Central Bath;
- Bristol;
- South Bristol and Fringe; and
- M5 Corridor/Weston.

Figure 1 West of England Indicative FEMA Sub-areas



Source: Wider Bristol SHMA 2015 & Atkins.

6. Property Market Assessment

6.1. The property market assessment is based on the views of key stakeholders and market agents and analysis of property market data. The overall conclusion is that the WoE has a healthy employment land market and there are expectations of growing demand for the future, especially in central and north of Bristol (including North Bristol fringe in South Glos). The WoE area has many natural assets including a skilled and educated workforce, a good quality of life to attract new workers and entrepreneurs, an existing critical mass of companies linked to high growth sectors such as high tech manufacturing and the knowledge economy. The WoE is strategically located next to the M4 and M5 close to London and is a gateway to the South West and South Wales markets. It also has a large active port and an international airport. These factors mean there is a significant and stable industrial and logistics base.

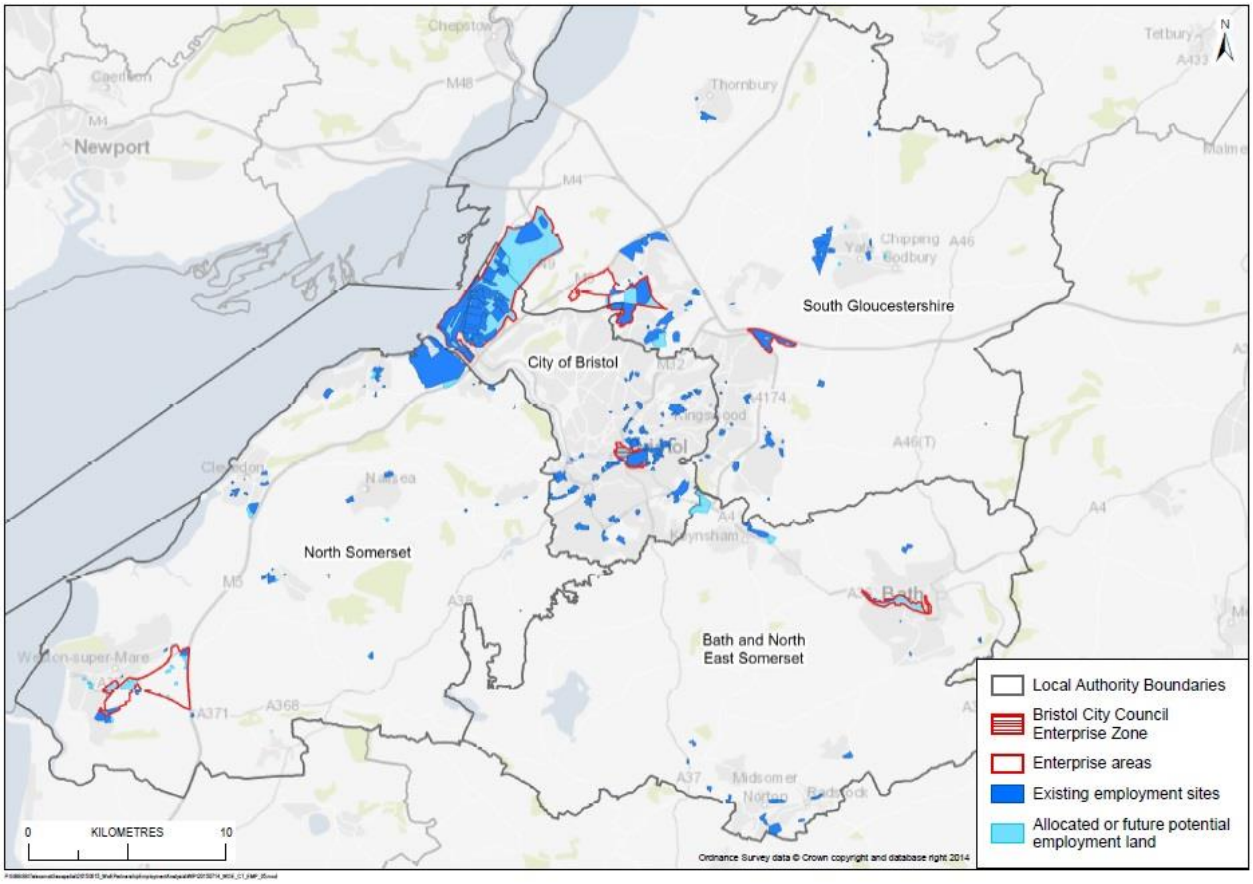
6.2. Potential competition from competing areas within the UK could affect the economic potential in the WoE if initiatives and policy commitments to promote economic growth at a WoE level are not effective. The key comparative competing areas include Oxfordshire and the Northern Powerhouse. Currently the WoE benefits from being close to London and is often an alternative to London for growing businesses due to its good quality of life and relatively cheap and plentiful commercial accommodation. However, this comparative advantage could be relatively eroded if HS2 and the Northern Powerhouse is successful and the significant employment growth at Oxfordshire is successfully delivered. Competition from these other UK areas alongside global competition provides a further impetus for the WoE to be proactive in

encouraging economic growth in the area. It also provides further justification for avoiding the fragmentation of the wider WoE FEMA into smaller standalone FEMAs (i.e. three standalone FEMAs in the WOE for Bath, Bristol and North Somerset).

7. Supply

7.1. The total stock of employment land in the WoE FEMA is assessed to be around 15m m[23]. Indicative locations of existing and potential future employment land is shown in Figure 2 below (See Figure 5-5 for larger scale):

Figure 2: Indicative Existing and Potential Future West of England Employment Sites*



Source: Atkins based on Council provided GIS data, 2015. Note: The light blue land at Avonmouth is not allocated but has been identified in the 2012 Avonmouth Severnside Development Strategy as having potential for future employment use.

7.2. Vacancy rates are approximately 12% which is slightly higher than the optimum level. The quality of employment sites, as assessed in the field survey, is generally fit for purpose and appropriate for employment use. There is around 3.1m to 3.2m m^2 of available space to meet future demand. This takes account of existing vacant space and the need to have around 10% vacant floorspace to allow the market to 'churn' effectively (i.e. frictional vacancy rate).

[3] This is existing built out employment space and does not include allocated employment space that is currently not constructed.

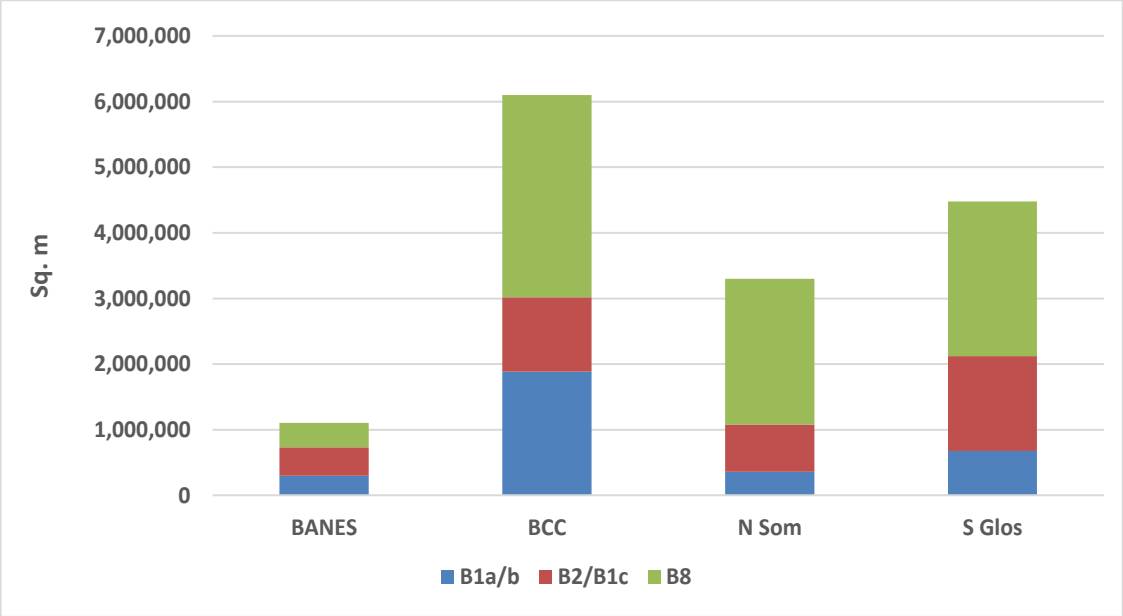
7.3. Total stock is shown in Table 1 and Figure 3 below.

Table 1: Total Stock of B-class Employment Land

Land use	BANES	BCC	N. Som.	S. Glos.	Total	% of Total
B1a/b	302,007	1,886,980	357,366	680,173	3,226,525	21.5%
B2/B1c	430,351	1,129,589	721,454	1,439,073	3,720,467	24.8%
B8	371,038	3,080,943	2,218,666[4]	2,358,597	8,029,244	53.6%
Total	**1,103,396**	**6,097,511**	**3,297,486**	**4,477,843**	**14,976,236**	100%
% of Total	7.4%	40.7%	22.0%	29.9%	100%	

Source: Atkins based on VOA and EGI data (2015)

Figure 3 Total Stock of B-class Employment Land in WoE by Area



Source: Atkins based on VOA and EGI data (2015)

7.4. Indicative potentially developable employment land to meet future demand is estimated to be around 631 hectares and 265,000 m^2. This is based on a combination of analysis of underdeveloped land with planning permission, allocations and land identified by Council officers that has the potential to be developed in the future. Land that has severe constraints that is unlikely to come forward in the planning period is not included. Indicative total potential developable employment space/land is shown in Table 2 below:

[4] Note the figure for B8 in North Somerset includes a large amount of floorspace at Portbury Dock.

Table 2 Potential WoE Employment Land/Space to meet future demand

Unitary Authority	Site (s)/Sub Area	Developable space/Land		Suitable uses	Source of Information & Notes
		Sq. m	Ha		
BANES	Bath Riverside EA (net after losses)	33,348		Office	Bath Core Strategy 2014
BANES	Devt. Sites in BANES:		28.5	Mixed office/ industry/ warehousing	GIS mapping from site survey observations
Bristol	Temple Quarter EZ (Bristol Centre)	186,248		Office	Bristol Core Strategy (2010) & Temple Quarter EZ Development Prospectus (2014)
Bristol	City Centres not EZ	30,761		Office	Bristol Core Strategy & Monitoring data
Bristol	South Bristol (Hengrove Park & Town Centres)	45,050		Mainly office	Bristol Core Strategy (2010) Policy BCS1 and South Bristol Employment Sites and Premises Assessment
Bristol	South Bristol - Site BSA1305 0.8ha - Site BSA1119 0.9ha		1.7	Mainly industrial/ warehousing	Bristol CS & consultation with BCC to define deliverable sites
Bristol	Other areas of Bristol	-30,247		Office	Bristol Core Strategy & Monitoring data
Bristol/S.Glos.	Avonmouth/Severnside EA:		364.8	Mainly industrial/ warehousing some office	Avonmouth/Severnside Devt. Strategy and consultation with SGC and BCC
N. Som.	Junction 21 EA: -		42.2	Mixed office/ industry /warehousing	North Somerset Council consultation and J21 EA website developer zone
N. Som.	Various sites in N. Somerset:		54.0	Mixed office/ industry /warehousing	North Somerset Council consultation
S. Glos.	Filton EA (North/East Bristol Fringe)		74.6	Mixed office/ industry/ warehousing	S Glos Employment Land Supply Assessment (2014) and PT14/3867/O
S. Glos.	Emersons Green EA		43.6	Mixed office/ industry/ warehousing	S Glos Employment Land Supply Assessment (2014) and GIS mapping from site survey observations
S. Glos	North/East Fringe		9.5	Mixed office/ industry/ warehousing	S Glos Employment Land Supply Assessment (2014) and GIS mapping from site survey observations
S. Glos	Yate		12.5	Mixed office/ industry/ warehousing	Consultation with SGC
Total		**265,160**	**631.4**		

Source: Atkins based on Council provided data, 2015

8. Demand

8.1. The demand exercise presented three scenarios. Apart from the scenario of past employment land take up trends the scenarios are based on 'top down' employment forecasts produced by Oxford Economics (OE) in 2015. The previous iteration of OE employment forecasts produced in 2013 supported the WELEP Strategic Economic Plan (SEP) and the Wider Bristol and Bath SHMAs.

8.2. To inject some market realism and to reflect 'on the ground' conditions 'bottom up' analysis was performed. This factored in the views of stakeholders and operators involved in the WoE commercial property market, analysis of business property enquiries, local economic development policy initiatives and the AMION employment land model. The key finding of this 'bottom up' demand exercise was that overall demand for employment space as defined in the 'top down' process appeared appropriate.

8.3. Under the Medium-High and High Scenarios it is estimated that there is demand for between 905,000 m^2 and 1,471,000 m^2 of employment space in the WoE over the planning period (2016 to 2036). When converted to land using standard plot ratio and employment density assumptions this equates to 191 ha and 316 ha for the medium high and high scenarios respectively. Projected WoE demand under the bottom up adjusted OE medium-high and high scenarios are shown in the following tables:

Table 3: B-class Land Demand Requirements – Medium High Scenario (m^2) 2016-2036

UA	Office (B1a/b)	Industrial (B1c/B2)	Warehousing (B8)	Total
BANES	59,000	- 11,000	14,000	62,000
BCC	207,000	- 33,000	150,000	324,000
N Somerset	104,000	-17,000	95,000	182,000
S Glos	209,000	-47,000	175,000	337,000
Total (FEMA area)	**579,000**	**-108,000**	**434,000**	**905,000**

Source: Atkins 2015. Figures in the Table have been rounded.

Table 4: B-class Land Demand Requirements – High Scenario (m^2) 2016-2036

	Office (B1a/b)	Industrial (B1c/B2)	Warehousing (B8)	Total
BANES	79,000	6,000	38,000	123,000
BCC	286,000	9,000	239,000	534,000
N Somerset	130,000	14,000	135,000	279,000
S Glos	270,000	21,000	244,000	535,000
Total (FEMA area)	**765,000**	**50,000**	**656,000**	**1,471,000**

Source: Atkins Figures in the Table have been rounded.

9. Supply Demand Balance

9.1. When available supply is matched to this projected demand by UA and business use type, it shows that supply largely matches demand in some areas. However, there is a relative imbalance in certain other areas. In total there is sufficient land in the WoE to meet demand. In fact there is a relative total oversupply in the Medium-High Scenario of 542 ha and 421 ha in the High Scenario

9.2. When assessing the quantitative and qualitative needs of the market it is appropriate to do so at the FEMA level. This corresponds to national policy (e.g. NPPF paragraphs 160 and 161 and 'duty to cooperate') and guidance (NPPG).

9.3. For example, if there is unmet need for a particular land use such as office in one UA, but just across the UA boundary there is a large amount of available office land, it would be appropriate and rational for that need to be met in the neighbouring UA. Based on this principle it is therefore possible to rebalance supply and demand across the FEMA so that where appropriate unmet economic development needs in one UA are met in a neighbouring UA within the WoE FEMA. This is done by apportioning the un-met employment land needs in one area to areas where there is a relative oversupply. This quantitative rebalancing exercise is only performed where it would be appropriate and realistic from a market perspective to do so.

9.4. For example, it would not be appropriate to apportion unmet Bristol City Centre office needs to land identified for warehousing/office use in Junction 21 in N. Somerset. In this hypothetical example the economic development needs relate to a desire to be in Central Bristol not in Weston. In this respect a qualitative assessment is made and applied to the quantitative supply demand balance exercise. This corresponds to the requirements as set out in para 161 of the NPPF.

9.5. It should be noted that this rebalancing of supply and demand across the FEMA is a high level strategic exercise that is used to establish whether at a FEMA level there is sufficient employment space in broad locations to meet identified economic development needs. It is used to inform and guide the strategic spatial planning direction of the WoE Joint Spatial Plan. Individual UAs, within their Local Plans, can use this information as a basis to develop their distinct economic and employment land policies that reflect their individual circumstances, policy priorities and objectives. For example, this approach also recognises the need for planning policy to seek to encourage sustainable travel patterns as more sustainable travel patterns will reduce unsustainable commuting. Whilst acknowledging the dynamics of the West of England FEMA that suggest an element of cross-commuting will exist, it is worth noting that another dimension to this is the need to plan for sustainable growth that reduces commuting where appropriate and this may occur at the strategic and/or local planning policy level.

9.6. The results of this matching of supply and demand is shown in Tables 5 and 6 below. Those cells that are red are considered to have a relative over-supply of land to meet demand, those in blue have a relative under-supply and those in green are considered to be in relative balance.

Table 5: Rebalanced Demand-Supply Balance (2016 –'36) – Medium-High Scenario (Ha*)

UA	Office (B1a/b)	Industrial (B1c/B2)	Warehousing (B8)	Total
BANES	16,353*	3.9	0.5	4*
Bristol	70,108*	-	-	0*
N. Somerset	13.8	12.5	-	26
S. Glos.	11.9	314.9	181.3	508
Total (FEMA)	**26***	**331**	**182**	**539**

Source: Atkins Figures in the Table have been rounded. * Supply in Bristol and BANES is shown in m^2 and not factored into the totals as it is not appropriate to convert to land as office accommodation will be provided in as yet defined multi-storey buildings.

Table 6: Rebalanced Demand-Supply Balance (2016 – 2036) – High Scenario (Ha*)

UA	Office (B1a/b)	Industrial (B1c/B2)	Warehousing (B8)	Total
BANES	-5,647*	-	-4.8	-5*
Bristol	-16,792*	-	- 0.4	0*
N. Somerset	6.6	-	0.2	7
S. Glos.	-	290.5	130.4	421
Total (FEMA)	**7***	**290**	**125**	**423**

Source: Atkins Figures in the Table have been rounded. * Supply in Bristol and BANES is shown in m^2 and not factored into the totals as it is not appropriate to convert to land as office accommodation will be provided in as yet defined multi-storey buildings.

9.7. The cells in Table 5 and 6 that have a single figure are considered to have a relative balance between available supply and future demand. This because the sensitivities and uncertainties over future projections mean that it is reasonable to consider that surpluses under 10 hectares are not significant, whereas when there are deficits of employment land to meet demand of anything over -5 hectares this is considered significant. This is because a lack of employment land to meet demand is more serious than an oversupply as this could hinder the economic potential of the area.

9.8. The indicative over supply of office floorspace in Bristol and BANES, under the medium-high scenario, is not considered to be significant as according to officers consulted this is likely to be offset by a loss of outdated office stock through permitted development right prior approvals[5]. Following the same logic, the small indicative undersupply of office space to meet demand under the high scenario in both UA's is likely to increase due to permitted development rights. However, based on the relatively low starting point the effect is not likely to be significant.

10. Conclusions

10.1. Based on the analysis conducted throughout the study the following key findings and conclusions are made (See Chapter 8 for full justification and analysis).

10.2. Potential competition from competing areas within the UK could affect the economic potential in the WoE if initiatives and policy commitments to promote economic growth at a WoE level are not effective. The key comparative competing areas include Oxfordshire and the Northern Powerhouse. Currently the WoE benefits from being close to London and is often an alternative to London for growing businesses due to its good quality of life and relatively cheap and plentiful commercial accommodation. However, this comparative advantage could be relatively eroded if HS2 and the Northern Powerhouse is successful and the significant employment growth at Oxfordshire is successfully delivered.

10.3. Competition from these other UK areas alongside global competition provides a further impetus for the WoE to be proactive in encouraging economic growth in the area. It also provides further justification for avoiding the fragmentation of the wider WoE FEMA into smaller standalone FEMAs (i.e. three standalone FEMAs in the WOE for Bristol, Bath and North Somerset). This is because this will inevitably lead to matching of supply and demand at a more micro level which risks planning policies and strategies not addressing the strategic, cross boundary economic needs of companies competing at the national and international level.

10.4. Tables 5 above show that under the Medium-high scenario, after appropriate rebalancing of supply and demand across the FEMA, North Somerset still has a relative over-supply of office and industrial land to meet identified demand and South Glos still has a small over-supply of office land and significant over supply of industrial and warehousing land (mainly at

[5] Note it is not possible, due to a lack of data, to accurately forecast the impact in quantitative terms of the PD rights on office demand in this assessment.

Severnside). Under the High Scenario shown in Table 6 there remains an over-supply of warehousing and industrial land in South Glos to meet projected demand.

10.5. In absolute terms there is a relatively significant surplus of employment land to meet projected demand at between 421 and 542 hectares. However, this mainly relates to the significant amount of land available at Avonmouth/Severnside. This land could be considered to represent a long term 'reservoir' of employment land to meet future as yet unidentified need or a greater diversity of uses could be considered. Avonmouth/Severnside requires significant infrastructure investment and is unlikely to be appropriate for other uses at least in the short to medium term. Notwithstanding this, the future long term role and function of Avonmouth/Severnside will need to be considered in the forthcoming Joint Spatial Strategy and individual UA Local Plan reviews.

11. Implications for Spatial Planning Polices

11.1. The analysis conducted in this report provides evidence that could underpin spatial policies in the forthcoming WoE JSP and individual UA Local Plan reviews. The key EDNA study conclusions and issues that could require policy responses in the JSP and Local Plan reviews include the following:

- Increasing future competition from other areas of England, such as Oxfordshire, Birmingham and the Northern Powerhouse as well as international competition and the effects of globalisation, mean that the West of England UAs and LEP should be positive and proactive in encouraging economic development in the WoE FEMA through spatial planning and other policy means.

- According to the findings of the EDNA the identified economic development needs of the FEMA to 2036 can be met in the available developable employment space. There is a relative balance in most areas apart from Avonmouth/Severnside where there is an oversupply (see below). This suggests that most existing WoE employment allocations could be retained.

- There is a relative oversupply of land at Avonmouth/Severnside to meet identified WoE FEMA economic development needs. The future spatial policy options for this land include; a) the land could represent a long term 'reservoir' of employment land to meet future as yet unidentified needs and accordingly could be retained as employment land at this time; b) the land could be identified for a greater diversity/mix of uses.

- To address relative deprivation and market failure in South Bristol, development schemes (infrastructure, housing and employment) within South Bristol and its fringe could be pursued. This could help challenge the status quo, create a virtuous cycle of investment and stimulate demand for employment uses, thereby helping to create jobs and addressing relative deprivation.

- To fulfil the economic potential of the WoE area and to provide local employment that will address local relative deprivation it is important that the local workforce has the relevant skills to meet business needs. The EDNA study identified that a relative skills gap exists in the WoE and this has the potential to hinder future economic development in the WoE in the planning period. Therefore to address this issue policies and initiatives should be put in place to address the relative skills gap in the WoE.

1. Introduction

1.1. Atkins was commissioned in 2015 by the four Unitary Authorities (UAs) in the West of England (WoE) area (Bristol City Council, South Gloucestershire, North Somerset and Bath and North East Somerset) to undertake an Economic Development Needs Assessment (EDNA) for the appropriate Functional Economic Area (FEMA) for the West of England. In early 2016 Atkins was re-commissioned to 'refresh' the EDNA to take account of newly published employment forecasts.

Purpose and Objectives of the Study

1.2. The EDNA provides a robust assessment of the future objectively assessed economic development needs of the West of England area. It also does this for the individual districts that make up that area. The EDNA is a strategic study that does not aim to pre-empt future spatial planning decisions.

1.3. While the study assesses employment projections and future trends for all types of employment including agriculture, retail, health, education, leisure etc., the study only projects demand for land in the B-class business uses (industrial, warehousing and office uses)[6].

1.4. The first task is to define the appropriate Functional Economic Market Area for the West of England area and then identify the economic development needs over the planning period within that FEMA. The study takes into account appropriate engagement conforming to the Duty to Co-operate principle from adjacent and nearby authorities. It also complies with the National Planning Policy Framework (NPPF) and the methodology follows that set out in the National Planning Practice Guidance (PPG).

1.5. The study is guided by the aspirations set out in the 2014 West of England Strategic Economic Plan (SEP) and the economic evidence and policy aspiration documents produced by the four West of England UAs to support their Local Plans[7]. Ultimately the evidence and findings of the study will help to feed into the evolving Joint Spatial Plan (JSP) for the West of England and the UA Local Plan reviews. The key study objectives are to;

- Assess and define the FEMA operating in the West of England and any sub areas within it and identify any cross-border issues relating to the provision of employment land.
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[7] This includes the respective employment land reviews for each UA and more recent policy documents containing economic objectives.

Contents of the Study

1.6. This report includes the following chapters:

- Chapter 2 - Socio-economic baseline and policy context – including a review of relevant planning and economic development policies and strategies and evidence documents and a review of the study area's socio-economic profile.
- Chapter 3 – Analysis of local property market – this section provides a property market appraisal using Estates Gazette information (EGi) data and information from local property agents (from telephone interviews and a stakeholder event).
- Chapter 4 – FEMA – this section defines the relevant FEMA and sub areas for the study
- Chapter 5 – Existing supply – this section sets out the current supply in the study area using Valuation Office Agency (VOA) data and information collected during the site surveys.
- Chapter 6 – Future demand – this section sets out forecasting for future demand across the study area utilising a range of forecasting techniques to develop a series of future demand scenarios, including Oxford Economics, trend-based and hybrid scenarios.
- Chapter 7 – Supply and demand balance –this section establishes the employment land requirement. This sets out an up-to-date, quantitative and qualitative assessment of the current supply of and demand for B1, B2 and B8 land and floor space.
- Chapter 8 – Conclusions – this sections draws together the study's findings.

1.7. This report includes the following appendices:

- **Appendix A** - Stakeholder Attendees
- **Appendix B** – Potential Development sites
- **Appendix C** – Glossary
- **Appendix D** – Approach to rebalancing supply and demand across the market area

2. Policy and Socio-Economic Context

Introduction

2.1. This section summarises the policy and socio-economic context for the study. This helps to identify the key implications for employment land policy within the West of England area. The review includes an assessment of the relevant local, regional and national policies including the NPPF and national guidance on producing appropriate and robust evidence base to support local plans. It also assesses the prevailing socio-economic conditions in the study area and the socio-economic context which shapes employment land demand and supply factors in the FEMA. This provides an important context for understanding economic demand/need, having regard to the wider regional economies.

National Planning Policy and Guidance

2.2. This section outlines the key national level policies and guidance that should be considered when developing local employment land policies.

The National Planning Policy Framework

2.3. The National Planning Policy Framework (NPPF) was published in March 2012. The NPPF is a key component of the Government's planning reforms which aim to make the planning system less complex and more accessible while at the same time promoting sustainable growth. The NPPF consolidates all policy statements, circulars and guidance documents into a single, simple Framework Key relevant elements of the NPPF include the following:

Using a proportionate evidence base

2.4. The NPPF encourages local planning authorities to ensure their Local Plans are based on adequate, up-to-date and relevant evidence about the economic, social and environmental characteristics of a given area. This aspect of the NPPF (paragraph 158) requires local authorities to ensure that their assessment of strategies for housing, employment and other land uses are integrated and that they take full account of relevant market and economic signals.

Business needs

2.5. The NPPF makes it clear that local planning authorities should have a clear understanding of business needs within economic markets operating in and across their area (paragraph 160). Local authorities are also encouraged to work together with other bodies including county and neighbouring authorities, Local Enterprise Partnerships (LEPs) and the local business community when preparing and maintaining a robust evidence base.

Duty-to-cooperate and neighbouring Local Authorities

2.6. The NPPF asks local authorities to use this evidence base to primarily assess: the needs for land or floorspace for economic development; the existing and future supply of land available for economic development and its sufficiency and suitability to meet identified needs; and reviews of land available for economic development in conjunction with other planning reappraisals (paragraph 161).

2.7. Bristol City, South Gloucestershire (S. Glos), North Somerset (N. Somerset) and Bath & North East Somerset (BANES) councils constitute the West of England area. This also corresponds with the WoE LEP (WELEP) area. As such, these authorities should be involved in duty to co-operate matters. Local planning authorities bordering the WoE area

should also be involved. These include; Sedgemoor, Mendip, Stroud and Wiltshire. Section 110 of the Localism Act sets out a 'duty to co-operate'. This applies to all local planning authorities, national park authorities and county councils in England and to a number of other public bodies. The new duty to co-operate:

- relates to sustainable development or use of land that would have a significant impact on at least two local planning areas or in a planning matter that falls within the remit of a county council and requires that councils set out planning policies to address such spatial issues;
- requires that councils and public bodies 'engage constructively, actively and on an ongoing basis' to develop strategic policies; and
- requires councils to consider joint approaches to plan making.

2.8. The NPPF identifies the strategic issues where co-operation might be appropriate, including the provision of major retail, leisure, industrial and other economic development across a travel to work area (paragraph 156). Paragraphs 178-181 of the NPPF give further guidance on 'planning strategically across local boundaries', highlighting the importance of joint working to meet development requirements that cannot be wholly met within a single local planning area through either joint planning policies or informal strategies such as infrastructure and investment plans.

2.9. This EDNA study provides part of the evidence base which will allow the West of England UAs and LEP to demonstrate how its approach to economic development meets the requirements set out in the NPPF. The JSP is not intending to include polices on retail and leisure uses, therefore these uses will not be covered by this study. These uses will however be covered in individual Local Plans and will be tied to separate appropriate retail and leisure evidence base studies.

National Planning Practice Guidance

2.10. The Department for Communities and Local Government's Planning Practice Guidance (PPG) is a web-based resource that brings together planning practice guidance for England in an accessible way. The PPG guidance regarding housing and economic land availability assessments and housing and economic land availability assessments is of particular relevance to employment land studies.

Defining need

2.11. The PPG outlines that 'need' should address the total quantity of economic floorspace required, based on quantitative assessments and a consideration of the qualitative requirements for each market segment. Additionally, the PPG recommends that any assessment of need should be realistic in taking account of the particular nature of that area (for example geographic constraints and the nature of the market area).

2.12. The PPG states that the assessment of economic development needs should take into consideration the following:

- Recent patterns of employment land supply and loss to other uses (based on extant planning permissions and planning applications);
- Market intelligence (from local data and discussions with developers, property agents and local businesses) and market signals, such as levels and changes in rental values, and differentials between land values in different uses;
- Potential infrastructure constraints;
- The existing stock of employment land including recent statistics on take-up of sites;
- Likely future business needs and future market requirements, including locational and premises requirements of particular types of business; and

- Identification of oversupply and evidence of market failure.

2.13. In terms of forecasting future trends, PPG states that Plan makers should consider forecasts of both quantitative and qualitative need and future needs should be broken down by economic sectors. Plan makers should use a range of techniques to assess future employment land requirements including:

- Sector 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 key stakeholders, studies of business trends, and monitoring of business, economic and employment statistics.

2.14. Projected demand should then be compared to the available stock of land so that any gaps in local employment land provision can be identified. Sites or broad locations should be assessed in terms of their suitability for development, availability and realistic likelihood of coming forward for development.

Economic development needs and the duty to cooperate

2.15. In accordance with Section 110 of the Localism Act and the NPPF (see above), PPG advises local planning authorities to assess their development needs by working with other local authorities within the functional economic market area.

2.16. The PPG recognises that economic development needs are rarely constrained precisely by local authority administrative boundaries. Local authorities within the West of England area are encouraged to work collaboratively with other bodies to ensure strategic priorities across local boundaries are properly co-ordinated and clearly reflected in individual Local Plans. This study recognises that joint working enables local planning authorities to work together to meet economic development requirements which cannot be wholly met within their own administrative boundaries. This study seeks to ensure West of England can demonstrate how they have planned for issues relating to cross-boundary impacts.

Assessment areas

2.17. The PPG identifies that economic needs should be assessed in relation to the relevant functional area, in this case that of a functional economic market area (FEMA). Establishing suitable assessment areas may identify smaller sub-markets with specific features, and it may be appropriate to investigate these specifically to create a detailed picture of local need.

2.18. The PPG recognises no single source of information on needs will be comprehensive in identifying the appropriate assessment area and that careful consideration should be given to the appropriateness of each source of information and how they relate to one another. Chapter 4 of this study considers the methodological approach to defining the relevant FEMA for the West of England area.

Employment Land Reviews Guidance Note

2.19. The Employment Land Reviews Guidance Note was published in December 2004 and is now superseded by the NPPF and PPG. However, the core methodology it outlines is still relevant and widely used in the preparation of employment land studies.

2.20. The key stages of an employment land review are as follows:

- Stage 1 - Taking stock of the existing situation: Review the existing supply of employment land and premises, identifying which employment sites are fit for purpose and should be safeguarded and which sites should be released to alternative uses.
- Stage 2 - Creating a picture of future requirements: Understand the future quantity of land required across the main business sectors by applying suitable forecasting models.
- Stage 3 - Identifying a new portfolio of sites: Undertake a qualitative review of all significant sites in the existing site portfolio and identify a portfolio of sites that will meet local and strategic planning objectives while serving the requirements of businesses and developers.

National policies potentially affecting demand for employment land

2.21. The following section outlines national level policies that could have the effect of changing current demand patterns for employment land and premises.

Permitted Development Rights

2.22. Permitted development (PD) rights allow certain types of development including changes of use without the need for a planning application. In May 2013 the Government introduced PD rights allowing the change of use from B1a offices to C3 residential for a period of three years (with CLG proposing a further 3 year extension to May 2019). In 2015, PD rights were extended to include the conversion of storage/ distribution (B8) to residential development[8].

2.23. The Government's rationale for these PD rights amendments is to bring underused and outdated employment premises back to life and create much needed new homes. However, many local authorities have expressed concerns about the impact of changes to PD rights as they restrict local control over development and potentially risk the integrity of the plan-led system and local decision-making.

2.24. Local authorities face the challenge of enabling the re-use of surplus, vacant or derelict offices without losing fit-for-purpose and in demand office floorspace. Whilst also avoiding a market failure situation where the relationship between the value of land in housing and office use leads to a shortage of office supply and the subsequent loss of jobs. The loss of smaller, affordable office units in particular, could have an adverse impact on smaller businesses, as well as business start-ups.

Starter Home Initiative

2.25. At the October 2015 Party Conference the Government made a fresh announcement about the 'The Starter Homes Initiative', originally introduced as a new National Policy in March 2015. The initiative seeks to introduce 200,000 new high quality, low cost starter homes for first time buyers. The policy states that local planning authorities 'should look for opportunities to create exception sites on commercial and industrial land that is either under-used or unviable in its current or former use'. This new policy poses a potential risk of losing B-class employment space within the West of England area because it affectively 'loosens' the protection of existing employment land and could encourage developers to make applications for residential use on existing employment land. To encourage developers to build affordable units developers will be relieved of significant elements of their infrastructure obligations. This raises questions of how the required infrastructure will be funded.

[8] The Town and Country Planning (General Permitted Development) Order 2015

Previously Developed Land (Brownfield Land) Planning Reforms

2.26. In July 2015 the Government outlined its intention to reform elements of the planning system in relation to previously developed land (brownfield land) in an effort to help boost national productivity. The key changes are that brownfield land that is deemed appropriate for redevelopment for housing, will be entered in a register and that land will be subject to automatic planning permission for housing (i.e. a form of zoning). Also, compulsory purchase order (CPO) powers will be improved to help bring that land into residential use quicker and more effectively where the land owner(s) resist redevelopment. Although there are limited details of how these initiatives will work the intention is clear. In terms of the effect on employment land, it is assumed that the initial stage of assessing which brownfield land is zoned for automatic planning permission for housing will be the stage that those brownfield sites that are appropriate for employment uses are separated out. This increases the importance of identifying which sites are necessary to meet local demand.

Sub Regional Policies and Strategies

2.27. This section provides a summary of the sub regional policies and strategies developed by the West of England UAs and LEP to address economic, residential, transport and spatial planning matters within the WoE area.

West of England Joint Spatial Plan 2016-2036

2.28. A Joint Spatial Plan (JSP) is currently being developed by the four West of England authorities. It will determine the broad spatial distribution of development as well as identify the housing requirement to be accommodated across the four West of England authorities from 2016 to 2036.

2.29. The distribution of housing and economic development uses will be determined through the JSP policy framework, involving, where appropriate, cross boundary agreement consistent with the objectives of the Duty to Co-operate. In addition, an evidence base is being prepared, including a Strategic Housing Market Assessment for the Wider Bristol Housing Market Area, to support the new plan.

West of England Strategic Economic Plan 2015-2030

2.30. The Strategic Economic Plan (SEP), developed by the West of England LEP in collaboration with its four authorities, business network, universities and colleges, sets out how the region will develop its £25.5 billion economy over the next 6 years, stimulating sustainable economic growth and creating 25,500 jobs. It was submitted to the Government on the 31 March 2014.

2.31. The SEP has prioritized the following 5 key sectors where the West of England has a sustainable international competitive advantage: Advanced Engineering and Aerospace; High Technology Industries; Creative and Digital Media; Low Carbon; and Professional Services. These sectors have been identified as having the biggest potential to create jobs and growth, whilst generating a multiplier effect in other sectors.

2.32. The SEP focuses resources on priority growth locations, expected to play a major role in creating the right conditions for business to thrive. The job estimates feeding the SEP are bottom up estimates which may not accord with overall employment forecasts as explored in this EDNA study. The key elements of the SEP are:

- Bristol Temple Quarter Enterprise Zone (17,000 jobs);
- Avonmouth/Severnside Enterprise Area (6,000 – 14,000 jobs in the next 10-12 years; 650 hectares of developable land);

- Junction 21 Enterprise Area (9,000 jobs, 6,000 new homes and £1,343 million Gross Development Value);
- Filton Enterprise Area (100 hectare of developable employment land, 7,000 to 12,000 jobs in the next 10-12 years);
- Emersons Green Enterprise Area (45 hectare site, 4,000 – 7,000 new jobs);
- Bath City Riverside Enterprise Area (98 hectare site, 9,000 jobs, 3,600 new homes);
- South Bristol (10,000 jobs).

2.33. In order to achieve its goals, the West of England LEP will benefit from funding provided by the Local Growth Fund, the EU Structural Investment Fund (SIF), the City Deal, Major Schemes programme, Revolving Infrastructure Fund and other potential public funding sources and private sector investment. The current programme requires £90 million per annum from the Local Growth Fund for six years, from 2015-2021.

Economic Forecast for the West of England (September 2015)

2.34. Oxford Economics (OE) produced an "Economic Forecast for the West of England" in September 2015 on behalf of the West of England LEP. These forecasts updated the August 2013 forecasts which were used as the basis of the West of England Strategic Economic Plan (SEP), the two relevant SHMAs (Wider Bristol and Bath) and the version of the West of England EDNA published in late 2015 as part of the Joint Spatial Plan Issues and Options consultation.

2.35. The main difference between the 2013 forecasts and the 2015 forecasts are the distribution of projected jobs between the different UAs. The overall level of demand is relatively similar between 2015 forecasts (i.e. 766,000 total jobs by 2036 in high scenario) and 2013 forecasts (760,000 total jobs by 2036 in high scenario). Projected jobs in South Gloucestershire fell by around 16% between the two sets of forecasts but the other three UAs relatively increased. Projected office employment, although still the most significant element of projected demand, fell relatively between the 2013 and 2015 OE forecasts approximately 10%). See Appendix E for further analysis of the differences between the various OE employment forecasts and Appendix F for an explanation of why the two sets of employment forecasts differ.

2.36. The 2015 forecasts include a range of employment forecasts for the area covering the period to 2036. They are based on the Oxford Economics Local Authority District Forecasting Model. The model provides data at regional and sub-regional level, including county, unitary and district authorities. It covers a wide range of variables, and is designed to be flexible so that alternative scenarios can be run.

2.37. Forecasts were produced based on five scenarios:

- A baseline scenario;
- High;
- Medium-high;

forecasts are critically analysed to assess their robustness and fitness for purpose for this EDNA.

Wider Bristol and Bath Strategic Housing Market Assessments (SHMA)

2.38 The West of England UAs have prepared Strategic Housing Market Assessments (SHMA) to cover the 2016-2036 period. The SHMAs review the evidence in relation to the configuration of housing market areas in the LEP area in order to objectively assess

housing needs based on the evidence available at the time the SHMA was prepared. The SHMA process concluded that there are two housing market areas in the WoE area. One for Wider Bristol covering Bristol, North Somerset and South Glos., and a separate SHMA for Bath.The Wider Bristol SHMA identifies that the Objectively Assessed Need (OAN) for Housing in the Wider Bristol HMA is 85,000 over the 20-year period 2016-36, equivalent to an average 4,250 dwellings per year. Whereas the Bath HMA identifies an OAN of 11,700 for the 20-year period 2016-36, an average of 585 dwellings per year. This includes the Objectively Assessed Need for Affordable Housing of 32,300 dwellings overs the same period, equivalent to an average of 1,615 per year across both housing market areas.

2.39. The Wider Bristol SHMA also reflects the economic forecast prepared by Oxford Economics (OE) in its "Economic Forecast for the West of England" report (see above section). It states that, considering the employment forecasts for the 20-year period 2016-36, total employment is likely to increase by 83,500 jobs in the medium-high scenario; and applying an uplift of 1.1% suggests that the growth equivalent to the LEP target covering this 20-year period would be 84,400 jobs. The SHMA topic paper ' West of England Housing Target' takes into account the revised 2015 OE forecast, for more information please see https://www.jointplanningwofe.org.uk/consult.ti

Unlocking Our Potential: The Economic Benefits of Transport Investment in the West of England (Nov 2012)

2.40. This report, prepared by Atkins in conjunction with the four West of England authorities, was issued in November 2012 and assesses the impacts of major transport schemes on Gross Value Added (GVA), economic activity and regeneration in the West of England. The major transportation schemes include:

- Bath Transportation Package
- Weston Package
- Ashton Vale to Temple Meads Rapid Transit
- North Fringe to Hengrove Package, Metrobus
- South Bristol Link
- Greater Bristol Metro Phases 1 and 2 and New Stations Package
- Temple Quarter Transport Package
- M49 New Junction

2.41. The above schemes are expected to significantly contribute to local economic growth by helping improve the productivity of businesses in the West of England area, especially the seven priority growth areas (Enterprise Zone and Enterprise Areas) as described in the Strategic Economic Plan. Improved accessibility to these areas will help existing businesses to expand, improve the attractiveness of the sites to investment and provide the necessary uplift in infrastructure capacity to enable new developments to take place.

2.42. The report estimates that, if no transport improvements are made, approximately 14,000 jobs will be created out of the total potential of 70,000 jobs in the seven growth areas by 2030. Conversely, if the transport improvements are made, it is estimated that around 34,000 jobs can be delivered. This means that the transport improvements would effectively unlock around 20,000 additional jobs (gross) in the seven growth areas.

2.43. In addition, it is estimated that the transport schemes would lead to an economic output of around £1.2 billion per annum by 2030. Of this, around £600 million could be unlocked through the five major transportation schemes currently being delivered, and the balance would be unlocked from rail schemes, Temple Quarter Package and M49 New Junction.

2.44. Finally, the report concludes that the package of transportation schemes will deliver a very high return of capital investment, totalling on average £3.60 additional annual GVA in the West of England per unit of cost, if the full value of the GVA associated with the jobs is compared against the costs of the transport schemes. The study therefore provides justification for funding the schemes, although given political uncertainties it cannot be used to predict whether the schemes will actually go ahead.

Local Policies and Strategies: West of England authorities

2.45. This section of the report provides a summary of the statutory development plan for each of the four authorities within the West of England area. The summary is focused on the economic development vision, goals and/or policies contained within the development plan for each local authority. Economic planning policy and guidance contained in non-statutory documents, but deemed to be material consideration, has also been included.

2.46. This section demonstrates the way in which the four local authorities have developed economic development plans which conform to national and sub-regional policy and guidance. Understanding the individual council's economic objectives also helps to guide the EDNA study.

Bath and North East Somerset (BANES) Council

BANES Core Strategy (Adopted July 2014)

2.47. The Core Strategy establishes the strategic policy framework to manage land use and development in Bath and North East Somerset Council to 2029. As it relates to guidance towards economic and employment development, the Core Strategy aims to strengthen and pursue a "smart growth agenda" focused on:

- Business support and development;
- Employability and skills;
- Business premises and infrastructure; and
- Promoting Investment.

2.48. The Core Strategy envisions that, by 2029, BANES will have a sustainable local economy with increased local employment, less overall commuting and a strong low-carbon business sector. The top employment contributors will be: Professional, Scientific, Technical; Wholesale and Retail; Information and Communication; Construction; and Manufacturing.

2.49. The Core Strategy envisions the following new residential units and jobs:

- Keynsham: 2,150 homes, 1,600 jobs;
- Bath: 7,020 homes, 6,950 jobs;
- Rural Areas: 1,120 homes, 700 jobs; and
- Somer Valley: 2,470 homes, 900 jobs.

2.50. Strategic economic and employment growth is targeted in the following key policies:

- Policy B1- Bath Spatial Strategy: overall net increase in jobs of 7,000, rising from 60,200 in 2011 to 67,200 in 2029; stock of office premises to increase from about 173,000 m^2 in 2011 to about 213,000 m^2 in 2029; enable the development of about 7,000 new homes.

- Policy B2 – Central Area Strategy Policy: net increase of about 40,000m^2 of modern office and creative workspace, to enable the growth of sectors targeted in the Economic Strategy;
- Policy KE1 – Keynsham Spatial Strategy: about 1,600 net additional jobs between 2011 and 2029; office floorspace to increase to 20,200m2 in 2029; industrial/warehouse floorspace to increase to 60,300m2 in 2029;
- Policy KE3a - Land adjoining East Keynsham Strategic Site Allocation: Around 30,000sqm of employment floorspace within Use Classes B1 (b) & (c), B2;
- Policy SV1 - Somer Valley Spatial Strategy: around 900 net additional jobs between 2011 and 2029; office floorspace to increase to about 33,700 m^2 in 2029; industrial / warehouse floorspace to increase to 112,000 m^2 in 2029.

2.51. Delivery of the economic goals set up in the Core Strategy are through the BANES Economic Strategy, Regeneration Delivery Plans and the Development Management process.

Economic Strategy Review 2014-2030

2.52. The BANES Economic Strategy 2014-2030 (endorsed August 2014) seeks to build on the City's strengths to create a more productive, higher value added economy. This report provides an update to the original 2010 Economic Strategy, developed in conjunction with the BANES Economic Partnership.

2.53. Overall, total local employment in BANES would increase by 12% and the value of the local economy would grow by over £3bn. It is estimated that an additional 11,500 jobs will be created by 2030. The top 5 areas of growth, by sector, include:

- Banking finance & insurance etc.;
- Transport & Communication;
- Distribution, hotels & restaurants;
- Other services; and
- Construction.

2.54. The following key sectors have been identified with potential for significant future expansion: Creative & Digital; Information & Communication (ICT); Advanced Engineering & Electronics; and Environmental & Low Carbon.

2.55. In order to meet the required level of economic growth to facilitate the expansion of the key business sectors, there is a pressing need for new grade A office floorspace within Bath – up to 50,000sqm of modern centrally located floorspace is required. In order to address the potential shortage of industrial floorspace, targeted areas include the former industrial sites in Keynsham and the Somer Valley, along with the regeneration of brownfield sites through the Bath City Riverside Enterprise Area.

Business Growth and Employment Land Update (Revised June 2010)

2.56. This study, commissioned by BANES Council in 2010, reviews job targets for the district and their appropriateness, forming part of the Council's Core Strategy evidence base.

2.57. The report indicates that the South West's likely annual average output growth (over the period 2006-2026) is around 1.6 to 1.9%. Therefore, scaling BANES' employment target in line with the output growth, around 5,000 to 10,000 net new jobs would be generated. This range depends on "future population growth, which in turn will partly depend on planning policies and decisions regarding housing land supply." The figures have been revised from what the abolished Regional Spatial Strategy predicted for the West of England area (output growth of 3.2% with 21,000 jobs in BANES).

2.58. This report recommends that, with Regional Spatial Strategies being abolished, all West of England authorities are to make employment and housing forecasts using the same output growth ratios and time-periods in order to enable a consistent approach to forecasting and planning for housing and employment growth.

Bath City Riverside Enterprise Area Masterplan 2014-2029

2.59. The purpose of the Bath City Riverside Enterprise Masterplan is to provide a spatial vision for the redevelopment of Council owned land in the Enterprise Area and provide guidance to developers and investors. This is not a statutory planning document, but forms part of the evidence base for the Placemaking Plan, which sets out detailed and statutory planning policy for the Enterprise Area.

2.60. The Bath City Riverside Enterprise Area Masterplan intends to accommodate up to 9,000 new jobs and 3,400 homes within the area, up to 2029. It includes 98 hectares of land along the river corridor in central and western Bath, some 36 hectares of which is developable brownfield land. Overall, the Enterprise Area has the potential to increase the value of the Bath economy by £620 million (an increase of 16%) per annum.

2.61. New employment will focus on Bath's strength in the following growth sectors: creative industries, professional financial & business services, information technology and software development.

Bristol City Council

Local Plan: Core Strategy 2006-2026, Site Allocations & Development Management Policies, Bristol Central Area Plan

2.62. Bristol City Council's Local Plan includes the Core Strategy, Site Allocation & Development Management Policies as well as the Bristol Central Area Plan. The key document of the Local Plan is the Core Strategy, adopted by Full Council on 21 June 2011. It replaces the 1997 Adopted Local Plan and cover the 2006-2026 period.

2.63. The Core Strategy states through Policy BCS8 (Delivering a Thriving Economy) that "the economic performance of the city will be strengthened by providing a sufficient and flexible supply of employment land, addressing barriers to employment and promoting the city as a place to invest." New employment land, to be provided in the period 2006-2026, includes:

- Up to 236,000m² of net additional office floorspace:
- Around 150,000m² in the city centre;
- Around 60,000m² in South Bristol;
- Around 26,000m² focused on town, district and local centres in the rest of Bristol.
- Up to 10 hectares of additional industrial and warehousing land focused on the major regeneration areas in South Bristol; and
- Principal Industrial and Warehousing Areas will be identified and retained for industrial and warehousing uses. Employment land outside of these areas will be retained where it makes a valuable contribution to the economy and employment opportunities. New employment floorspace suitable for smaller businesses will be encouraged as part of mixed-use development.

2.64. Policy BCS1 identifies South Bristol as a priority focus for development, including around 60,000m² of net additional office floorspace focused on centres and the major regeneration areas (Filwood/Knowle West, Hartcliffe and Withywood); up to 10 hectares of new industrial and warehousing land focused on the major regeneration areas; and provision of around 8,000 new homes of a mix of type, size and tenure. The main rationale for focusing growth in South Bristol is to create new jobs and create wealth to help address issues of deprivation (relative poverty and worklessness) that exist there.

2.65. Policy BCS2 is focused on building on the strengths of Bristol City Centre as the largest and most significant urban centres in the South West of England. It identifies development within the City Centre to include around 150,000m² of net additional high quality office floorspace and the provision of around 7,400 new homes up to 2026.

2.66. Policy BCS4 identifies Avonmouth as a priority area for industrial and warehousing development and renewal. Proposals for port-related activities, manufacturing industry, logistics / distribution, waste management and other environmental technology related industries will be particularly encouraged. There may be opportunities for the development of energy from waste facilities, biomass energy and further large scale wind turbines.

2.67. Policy BCS5 states the housing provision target of 26,400 homes in Bristol between 2006 and 2026.

2.68. The Site Allocations & Development Management Policies (SADMP) document and Bristol Central Area Plan (BCAP) also form part of the Bristol Local Plan and will help deliver the strategic policies set out in the Core Strategy.

2.69. The SADMP document was adopted by Full Council on 22 July 2014 and sets out Bristol's site specific allocations for development, policy designations and development management policies. As it relates to the economy, Policy DM12 states that valuable employment sites are to be retained where they make a contribution to Bristol's economy and used for the sole purposes of industrial or commercial training. Policy DM13 indicates that development proposals on Principal Industrial and Warehousing Areas (PIWA) can also include the following uses: commercial training facilities; community facilities; specialised leisure uses; and essential public utilities development, amongst others.

2.70. The BCAP, adopted March 2015, explores how Bristol's central area will develop over the next 12 years to 2026 and contains policies that will be used to help determine planning applications in central Bristol. Policy BCAP6 states that approximately 135,000m² office floorspace can be developed within Bristol City Centre, including locations in Temple Quarter, Redcliffe, Old City and Harbourside. Policy BCAP7 indicates that loss of employment space can only take place where developers can demonstrate that allocated employment land can no longer accommodate employment uses and are appropriate for other uses. Policy BCAP8 seeks to safeguard the continued use around the Floating Harbour for maritime industries.

Bristol Business Development Survey Report 2014

2.71. The Business Development Survey Report covers the period from April 2013 to 31 March 2014 and records the growth and development of the following uses: retail (i.e. shops, financial and professional services, restaurants, etc.), employment (i.e. business, industrial, storage and distribution, etc.) and others (i.e. hotels, residential, institutional, etc.). This annual survey provides supporting evidence for the development of planning policies and to inform planning decisions.

2.72. Highlights from the survey include:

- In 2013/14, 22,573m^2 gross B1a office floorspace was completed across Bristol. Significant developments include Brunel's Old Station Conference centre (within Bristol Enterprise Zone), the new Imperial Tobacco head offices in South Bristol, and Simply Health's new offices at Redland House;
- Planning permission was granted for additional 228,188m^2 of new office floorspace, of which 90% of sites were located in the city centre. Developments include: Albert House/103 Temple Street & 111 Victoria Street in the city centre, and the former City of Bristol College in South Bristol;
- Industrial and warehousing completions were above average in 2013/14. In Avonmouth, this includes the redevelopment of Portside, which now holds a large-

scale chilled distribution unit (45,007m^2 B8) and an ancillary service centre (12,188m^2 B2), and a new a new materials recycling facility (11,000m^2);

- Retail completions across Bristol in 2013/14 were modest, and no significant growth was accrued;
- In terms of other uses, Bristol's most significant completion of 2013/14 was the main phase of Southmead Hospital in the Northern Arc, producing a net increase in C2 floorspace of over 75,000m^2.

Bristol Employment Land Study (February 2009)

2.73. The Bristol Employment Land Study (ELS) identifies employment land requirements for the 2006-2026 period based on an analysis of economic forecast and assessment of the quality of the city's main employment areas for continued use. In doing so, it provides employment land evidence to inform the adopted Core Strategy.

2.74. Using a 3.2% annual GVA growth scenario, jobs in office-based employment in Bristol are expected to grow by 24,900 and 236,000m2 of additional new office floorspace should be provided in the period 2006-2026. The ELS recommends promoting various sites within the city centre and South Bristol to meet this need.

2.75. The expected increase in industrial and warehousing based employment arising from the 3.2% GVA annual growth forecast is 1,700 jobs, resulting in a requirement of 24.5 hectares of new non-Avonmouth industrial and warehousing land to meet both current and future industrial and warehousing needs. The ELS recommends to extend the boundary of the current boundary of the PIWA designation at the Novers Hill and Vale Lane Industrial Areas along Hartcliffe Way to provide approximately a further 5 hectares; and to investigate other sites within South Bristol as part of wider work to drive forward the regeneration of South Bristol.

2.76. The centre of Bristol is of particular importance to the city's economy with over 100,000 people employed in a diverse range of occupations. As the region's office capital it is the location for the country's largest employment base in banking, insurance and professional services outside London. The Temple Quay area adjacent to Temple Meads train station is a particularly successful office location containing a number of headquarters buildings. The Employment Land Study confirms that there will be a need and demand for new office floorspace over the period 2006-2026. This includes 236,000 square metres of new office floorspace will be needed to 2029 with a main focus on the city centre but also targeting opportunities in South Bristol.

Avonmouth/Severnside – Covering Bristol City Council and South Gloucestershire Councils

2.77. Avonmouth/Severnside is the largest employment area in the WoE. The majority of land falls within South Gloucestershire, however some of it is within Bristol City Council. Therefore this section is not included in South Gloucestershire or Bristol City Council sections.

Avonmouth Severnside Outline Development Strategy (ODS) (April 2012 - Final Report), Bristol City Council and South Gloucestershire Councils

2.78. The Avonmouth Severnside area, identified by the West of England as an "Enterprise Area", is located between Bristol and the River Severn, immediately adjacent to the M5 and M49 motorways. It is made up of two main areas of economic activity – Avonmouth in the south and Severnside in the north. The area straddles two council areas (Bristol and South Glos.) and the study was jointly commissioned by both councils. Avonmouth/Severnside is a regionally and nationally significant industrial area focussed on the port of Bristol and including some major employers and infrastructure items (e.g. power stations).

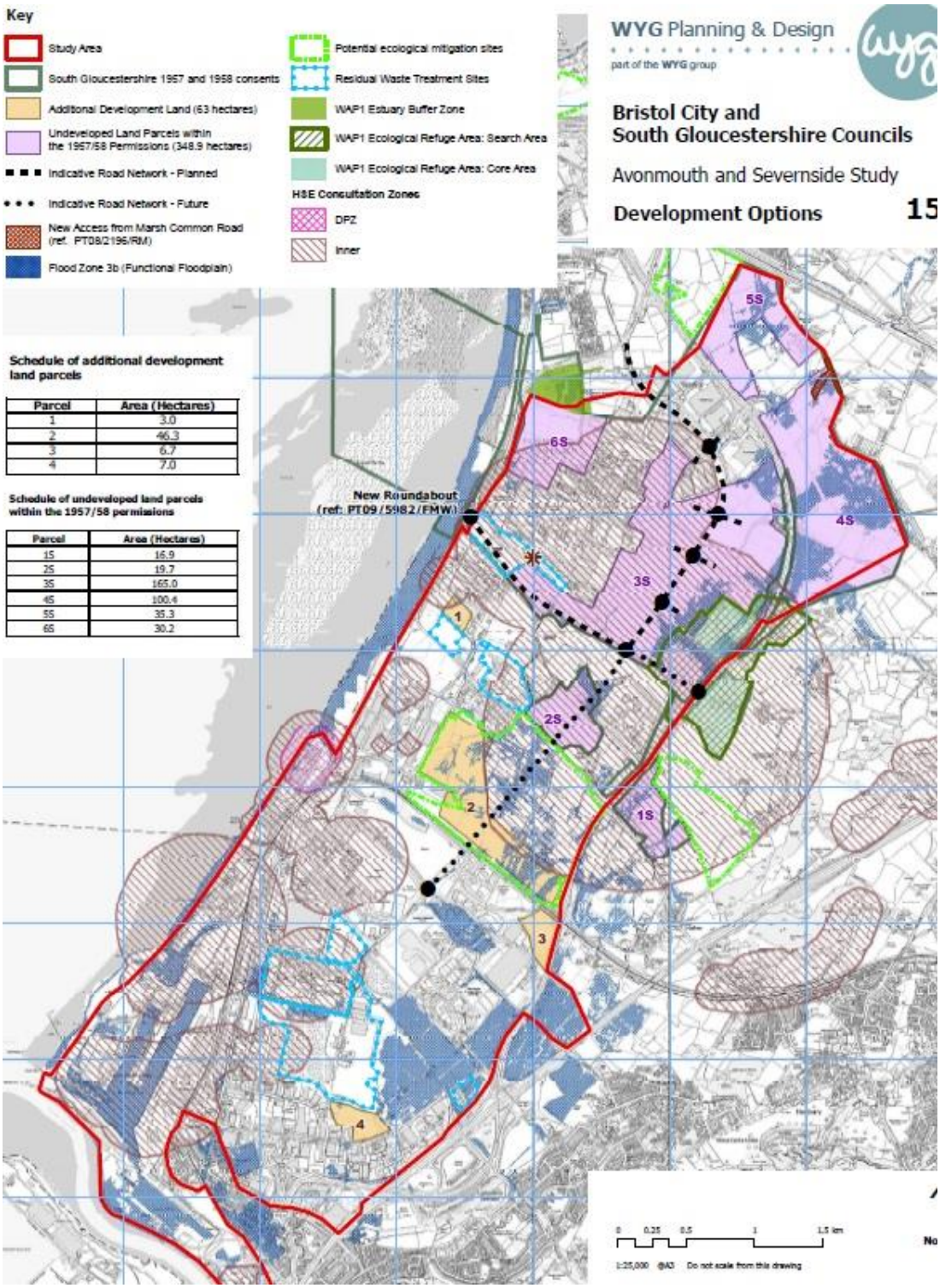
2.79. In 2010, there were some 14,200 people employed within Avonmouth Severnside. The three largest sectors in terms of employment were transport and storage (23%), wholesale (22%) and manufacturing (18%).

2.80. The economic development potential of the area is huge with an estimated 420 ha of potentially developable land (subject to a variety of constraints being overcome – see below). This land has an estimated capacity to accommodate up to approximately 1.47 million m^2 of B2/B8 employment floorspace, creating the potential for some 20,000 jobs. This development capacity is likely to take place over a 40 year period (up to 2050). The study assumes that demand may arise for up to 46,500 m^2 per annum of new employment floorspace over the next ten years, subject to viability, falling to 33,500 m^2 per annum thereafter until the area is fully developed out.

2.81. The ODS suggests that there are significant challenges to overcome to enable the potential employment growth at Severnside/Avonmouth. To enable employment growth in the area there are key infrastructure issues that would need to be addressed. In order to capitalize on the site's development potential infrastructure improvements that need to be delivered include; transport (M49 new junction); flood defences; major accident hazards (storage of liquid gas), ecology (habitat mitigation), transport, potential land contamination and archaeology. There is also an issue over how infrastructure would be funded. Since the ODS was published progress has been made. This includes completion of technical feasibility studies and approval by BCC, SGC and LEP in June 2015 of £1.9 m for design and development of flood defence and eco-mitigation schemes, and approval of funding by Highways Agency in early 2015 for the new junction to the M49 at Severnside.

2.82. A large part of the site (approximately 350 hectares of undeveloped land) is covered by an extant planning permission, 'the 57/58 ICI permission' (see plan below) which means that the Council cannot control what type of development goes on this element and cannot require developer contributions for infrastructure. There is also approximately 63 hectares of land not allocated or subject to planning permission. The report estimates that total cost of infrastructure items is around £110m.

Figure 2-1 1957/58 ICI extant planning permission (un-developed areas in pink)



Source: WYG (2012)

North Somerset Council

North Somerset Core Strategy (adopted April 2012, updated 2013)

2.83. The North Somerset Core Strategy was adopted in April 2012, but following a legal challenge the housing policies were remitted back to the examination stage to be re-considered. The current published version has been updated following the March 2013

High Court Judgement but at the time of writing the housing elements are yet to be resolved. The employment policy was unaffected by this and sets out the strategic direction for employment change and distribution between 2006 and 2026. The Core Strategy sets out a framework to guide development choices and decisions on development proposals in North Somerset. In relation to economic development and employment land, the following policies apply:

- CS20 – Supporting a Successful Economy: The Core Strategy seeks to provide at least 10,100 additional employment opportunities 2006 – 2026. 114 hectares of land is allocated for B1, B2 and B8 uses (business, general industrial and storage and distribution), and to address the existing imbalance at Weston-super-Mare;
- CS21 - Retail hierarchy and provision: indicates that the focus for future retail development will be Weston-super-Mare through the redevelopment and regeneration of town centre sites as well as through the town centre regeneration at Nailsea and Portishead;
- CS24 - Royal Portbury Dock: seeks to maintain and enhance the role of Royal Portbury Dock and safeguard land at Court House Farm, Easton-in-Gordano/Portbury for port uses;
- CS28 - Weston-super-Mare: this will be the primary focus for development within North Somerset and will accommodate around 6,913 additional new dwellings balanced with approximately 10,500 employment opportunities from 2011–2026;
- CS29 - Weston-super-Mare town centre: will provide the focus for retail, leisure and entertainment facilities and commercial office development, to support town-wide regeneration;
- CS30 – Weston Villages: this area will accommodate the provision of 1.5 jobs per dwelling over the plan period, provide about 5,500 new homes and at least 37.7 ha of B Use Class employment land located within allocated employment sites, mixed-use development areas and at local and district centres.
- Clevedon Vision 3 - The employment base will have strengthened allowing more opportunities for residents to work locally. Increasing numbers of those who travel to work outside Clevedon will make the journey by public transport, cycle or shared car journey. Access by public transport within Clevedon and between the other towns will be improved.

  Development management policy framework

- A Sites and Policies Plan, Part 1: Development Management Policies plan has recently been submitted for examination that includes a series of policies related to economic growth and employment. These are more detailed policies intended to guide development proposals and decision making on planning applications.
- Emerging site allocations
- A site allocation plan is also being progressed that will allocate a suite of specific employment sites. This will be informed by a detailed review of the existing remaining employment allocations as safeguarded in the Replacement Local Plan (2007).

Weston Villages Supplementary Planning Document (2012)

2.84. This document, adopted by Council on 26 June 2012, sets out the planning context and masterplan framework for the strategic development at Weston Villages. Weston Villages is the principal new strategic development area within North Somerset and comprises two proposed new communities located to the south-east of Weston-Super-Mare: Winterstoke Village located on the former Weston Airfield, and Parklands Village on the former RAF Locking and adjacent land. Weston Villages makes up a large part of the J21 EA area and economic growth within it is central to the delivery of J21 objectives.

2.85. A key development theme of Weston Villages includes the creation of jobs, through an "Employment-Led Development" strategy (paragraph 3.62). It states that "residential development will be phased in tandem with the provision of jobs at the Weston Villages at the rate of 1.5 jobs per dwelling over the plan period. Residential development will be limited to tranches of not more than 250 dwellings in advance of adequate job creation."

2.86. Within the Masterplan Framework, the total estimated capacity of both Weston Villages is about 5,800 dwellings and around 42.4 hectares of B class employment land to be delivered to provide a range of sites and employment opportunities. Employment land is to be provided in the form of specific allocations, subject to modification through sub-area masterplans in order to ensure delivery of the employment-led strategy.

2.87. At Winterstoke Village, the largest employment allocation will be at Weston Airfield Business Park, aimed to deliver high quality B1/B2 Business Park. Elsewhere at Winterstoke Village there will be smaller scale employment opportunities at the local centre in association with retail and community facilities, in addition to the existing Winterstoke Distribution Park which will be maintained in industrial use.

2.88. At Parklands Village, B class employment development will be focused at three key locations: Locking Parklands (off the A371 road), North of Parklands (good visibility to the A370 Somerset Avenue), and Parklands local centre.

Employment-Led Delivery at Weston-Super-Mare, Supplementary Planning Document (Adopted November 2014)

2.89. The Employment-Led Delivery at Weston-Super-Mare (WSM) SPD provides further guidance on the implementation of Policy CS20: Supporting a Successful Economy of the adopted North Somerset Core Strategy. Policy CS20 seeks to improve the balance between jobs and homes in WSM, through controlling the release of new housing in tandem with the provision of employment to ensure the imbalance is not exacerbated.

2.90. The employment-led strategy applies to WSM as a whole and a distinction is made between the Weston Villages (as described in the above section of this report) and the wider town, as follows:

- Junction 21 Enterprise Area (including the Weston Villages): this area encompasses the entire Weston Villages area and also a number of key proposed business sites;
- Remainder of WSM: this area covers the rest of the settlement of WSM and beyond including land bounded by the River Yeo to the north, the M5 to the east and the River Axe to the south.

2.91. Provision is to be made for 1.5 jobs/dwelling to be provided from all qualifying residential proposals. All forms of employment generating land use falling within the definition of Economic Development of the NPPF (with the exception of construction) can be counted towards the release of housing within the employment-led strategy. Although the Core Strategy prioritises B use employment, alternative classes of employment would be acceptable

Weston-Super-Mare Prospectus for Change, a Vision for the Future

2.92. North Somerset Council is in the early stages of consultation to develop a new Supplementary Planning Document (SPD) to enhance the vitality and viability of Weston-Super-Mare's Town Centre.

2.93. A preliminary document, named "Weston-Super-Mare Prospectus for Change, A Vision for the Future", has been prepared to encourage discussion. It states that high-quality urban residential development will encourage regeneration of the town centre and inject new life into the area, supporting and improving the viability of existing and new businesses. In

addition, a shopping area more closely linked to the seafront is envisaged as well as the creation of space for employment and new business start-ups is required.

South Gloucestershire Council

Core Strategy 2006-2027

2.94. The Core Strategy, adopted by Council on 11 December 2013, is the key planning policy document for South Gloucestershire, setting out the general location of development, its type and scale, as well as protecting what is valued about the area.

2.95. As it relates to the economy, the Core Strategy states that South Gloucestershire has a robust, diverse and vibrant economy which has experienced high job growth rates and low unemployment. The area's strengths include road and rail connections, presence of an aerospace engineering sector, establishment of the MOD and the financial services industries, as well as the University of the West of England (UWE) and the large retail area at Cribbs Causeway.

2.96. New major developments are planned at the Science Park at Emersons Green, part of the Emersons Green Enterprise Area; at Severnside part of the Avonmouth Severnside Enterprise Area; and at the Filton/A38 Enterprise Area, will help to reinforce the local economy.

2.97. In relation to economic development, the Core Strategy intends to:

- Ensure that South Gloucestershire plays its role in making the West of England economy one of the most prosperous, innovative and vibrant in Europe, by providing a sufficient range of employment land for existing and new businesses of all sizes;
- Provide for the key sectors of advanced engineering, including aerospace and defence; finance and business services; higher and further education; retail; environmental technologies and hi-tech industries;
- Take opportunities to provide more balanced employment across the district so that every community has access to a range of employment opportunities locally;
- Ensure the provision of appropriate communication technologies; and
- Enhance town centre vitality and viability.

2.98. The relevant Core Strategy policies include:

- CS11 – Distribution of Economic Development Land: the Council will maintain a supply of economic development land as follows:
- North Fringe of Bristol urban area - 355 Ha
- East Fringe of Bristol urban area - 147 Ha
- Yate & Chipping Sodbury - 88 Ha
- Allocated within the new neighbourhood at North Yate - Up to 9 Ha
- Thornbury - 19Ha
- Rural Area - 14 Ha
- Severnside (existing area with planning permission) - 635 Ha

- CS12 – Safeguarded Areas for Economic Development: in addition to the locations identified in policy CS11, there is also provision for employment uses in

"interim safeguarded sites", in sites located within settlement boundaries (covered by Policy CS13), and in rural employment sites.

- CS13 – Non-Safeguarded Economic Development Sites: states that proposals for change of use on economic development sites not safeguarded in Policy CS12, within the settlement boundaries of the urban areas and villages defined on the Proposals Map, will not be allowed unless it can be clearly demonstrated that all reasonable attempts have failed to secure a suitable economic development re-use.
- CS14 – Town Centres and Retail: states that the vitality and viability of existing centres in South Gloucestershire shall be enhanced and protected in recognition of their retail, service and social functions.

S. Glos. Policies, Sites and Places Plan Development Plan Document

2.99. This Development Plan Document (DPD) intends to manage new development and to help identify the vision of local communities for their respective area. A publication version was under consultation (during July 2015).

2.100. In relation to the economy of South Gloucestershire, the following policies are applicable:

- Policy PSP27 - Enterprise Areas (to be focused in Emersons Green, Filton and Avonmouth/ Severnside);
- Policy PSP28 - B8 Storage and Distribution Uses of 3,000sqm in size and above (to be focused at Severnside, Cribbs Causeway and Emersons Green, excluding the Science Centre);
- Policy PSP 32 – Town Centre Uses (identified the need for 34,000sqm additional net floorspace for the period 2011 - 2026/27)

South Gloucestershire Employment Land Survey April 2014

2.101. The Employment Land Survey April 2014 was prepared by South Gloucestershire Council to monitor the availability, distribution and loss of employment and non-residential land and buildings across South Gloucestershire. Employment and non-residential land uses include shops, retails, restaurant, institutional, business and light-industry uses, amongst others.

2.102. Highlights from the 2014 survey include:

- Limited new office development in the twelve months to April 2014, with only the subdivision of offices at Aztec West;
- Major new retail developments have been completed in the twelve months to April 2014 including: Waitrose at Chipping Sodbury, Next Home and Garden at Cribbs Causeway, Aldi at Longwell Green, and the redevelopment of the Abbeywood Retail Park at Filton;
- New large scale industry and warehouse development with the erection of an extension to the National Composites Centre at Emersons Green. The remaining completions have been relatively small in scale, including the erection of a vehicle body repair workshop in Warmley and the extension to an existing production facility at Woodward Avenue, Yate.

Authority's Monitoring Report (AMR) 2014

2.103. The most recent AMR, covering the period 1 April 2013 to 31 March 2014, states that In the 2013/2014 monitoring year, there was a total of 360.53ha of available employment land in South Gloucestershire. Over the past year there has been a further reduction of land in B1a employment use, reduction of B1b and B2 and a small gain in B1c land uses.

Figures also show a large decrease in the amount of land available for mixed employment uses, but a subsequent increase in available land for B8 uses.

2.104. There has been limited new B1a office space in the12 months to April 2014 with only the subdivision of offices at Aztec West accounting any gains. Within categories B1b, B1c and B2, there has only been one new large scale completion of an extension to the National Composites Centre at Emersons Green (B1b) within the Emersons Green Enterprise Area.

2.105. The loss of B8 space and gain in mixed space that has taken place in the past 12 months is mostly as a result of the change of use of the former Focus B8 distribution warehouse at Western Approach, Severnside (within Avonmouth Severnside Enterprise Area) to a mixed B2/B8 use.

2.106. Since 2006 it is estimated that almost 9,600 additional jobs may have been created in the district through completed developments which required planning permission; 1,089 of these jobs may have been created in the last monitoring year.

Socio-economic profile

2.107. This section includes research of relevant socio-economic indicators using a variety of data sources and cross referencing the 2015 West of England Local Economic Assessment (LEA[9]).

Key socio-economic indicators

2.108. In general there are a high number of highly qualified workers in the West of England LEP area (WELEP). According to the LEA 41.2% of working age people are qualified to degree level (level 4)[10] [11]. This is the seventh highest rate amongst 39 comparator LEP areas and reflects the fact that there is a core of high growth sector (e.g. knowledge economy) jobs in the West of England (see below for further information).

2.109. However, there is a potential issue in that the educational attainment and young people's participation in higher education is below the national average[12]. Based on the 2013 GCSE and A Level results Bristol City education authority was in the bottom 6% nationally (141 out of 151), while South Gloucestershire was in the bottom 25% (120 out of 151) and North Somerset in the bottom 30% (107 out of 151). Only Bath and North East Somerset was in the top 30% (42 out of 151). This disparity in the skills and education levels of the West of England population could have implications for future economic growth if there is a relative skills gap for the non-knowledge economy type jobs (typically industrial, warehousing and logistics).

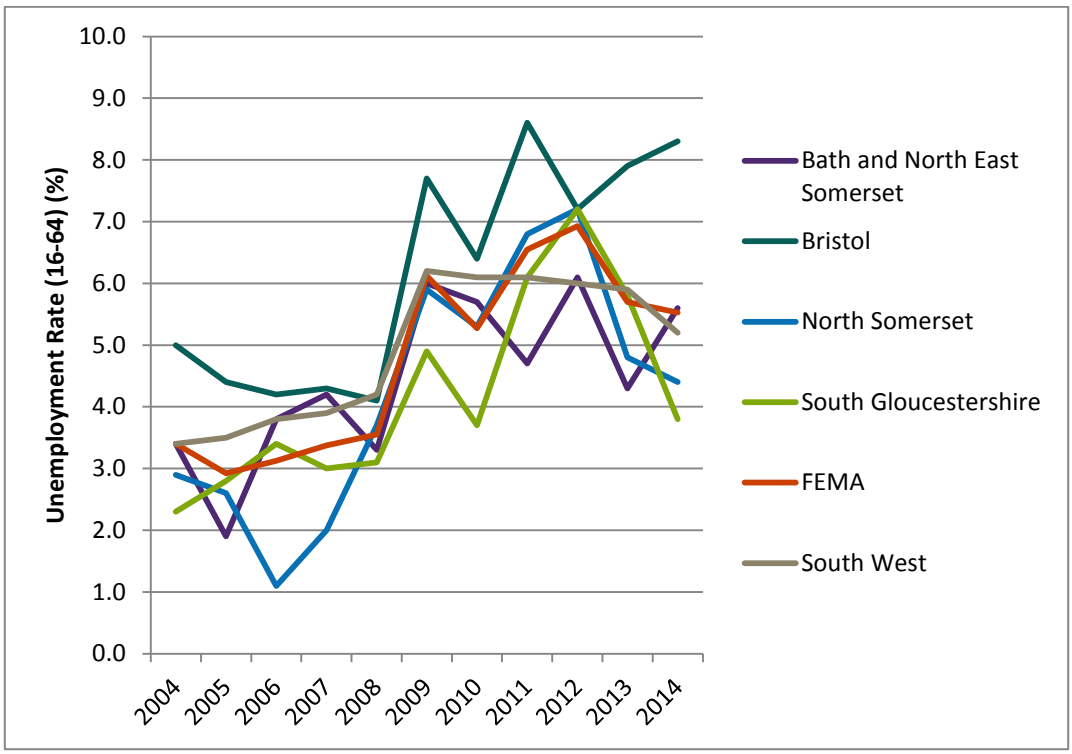
2.110. The WoE area (assumed for this socio-economic assessment to be the FEMA) has areas of relatively low deprivation compared to the national average, with Bath and North East Somerset (ranking 268th), North Somerset (ranking 224th) and South Gloucestershire (ranking as 274th) most deprived local authority in the English Indices of Deprivation 2015 (where1st is the most deprived local authority in England and 326th the least deprived). Bristol has a slightly higher level of deprivation in comparison to the other local authorities (ranking 77nd). However it should be noted that within the WoE there are certain areas that are within the most deprived areas of England, particularly some areas of South Bristol and Weston-super-Mare which are in the bottom 10% of most deprived wards nationally[13].

2.111. The FEMA's unemployment rate averaged 4.8% over the period 2004 to 2014 compared to an average of 4.9% across the South West. It recently rose to a high point of 6.9%

[9] Athey Consulting, West of England Local Economic Assessment (2015), p9
[10] Qualifications and students, Census, 2011
[11] Indices of Deprivation, 2015
[12] *Ibid,* p8
[13] *Ibid,* p4

during 2013 which was higher than the South West Average (6.0%) and influenced by the UK-wide recession. (Figure 2-2).

Figure 2-1 Unemployment rate - aged 16-64



Source: Annual Population Survey, ONS

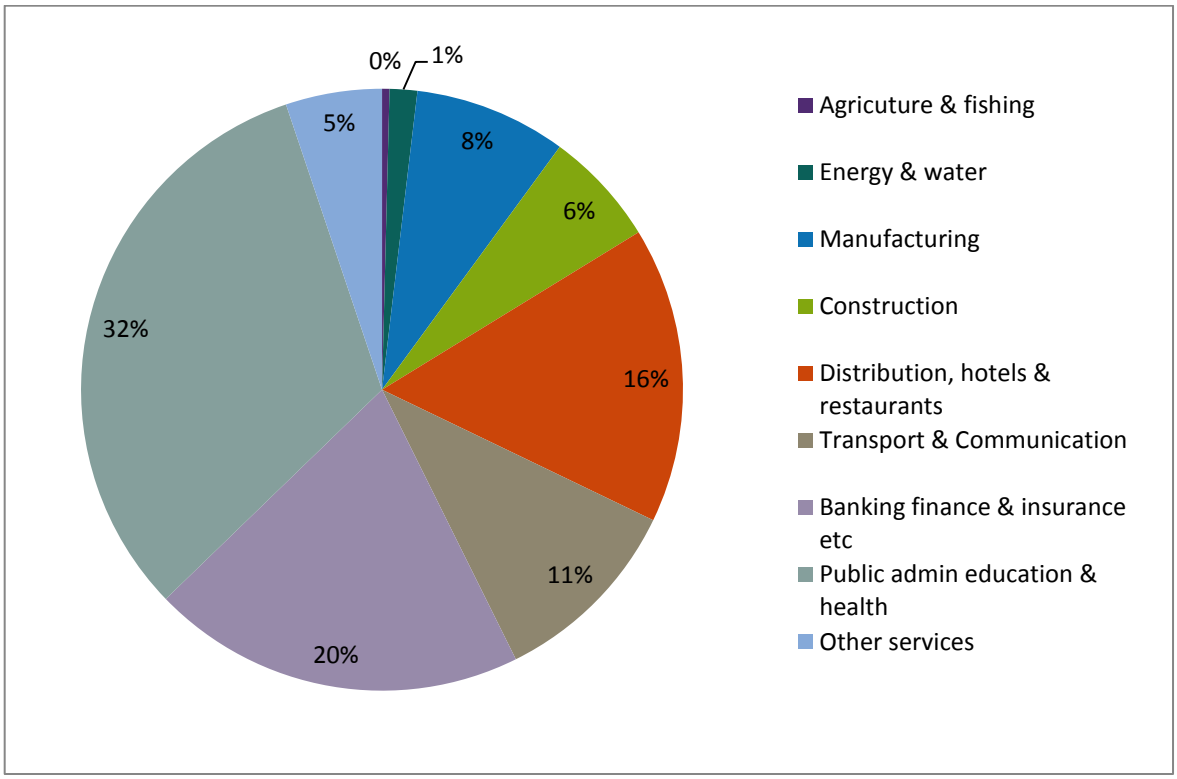
2.112. The FEMA has lower levels of self-employment, with 3.7% of residents aged 16-64 being self-employed (compared to the South West average of 4.6%). According to the 2011 Census the most popular method of travelling to work in the West of England was by car (56%) This is slightly higher than the England average of 54 per cent. In comparison to the English average a greater than average of employed residents travelled to work on foot (13 per cent, against 10 per cent nationally), while a below-average percentage travelled by train/underground/metro/light rail/tram (2 per cent, compared with 9 per cent nationally) [14].

2.113. There is a low level of out commuting from the FEMA to other areas. In 2011, 58% of people living in the FEMA travelled short distances to work (less than 10km), which is higher than the England average of 52%. This was boosted by the high rate of people living in Bristol travelling short distances (69%).[15]

2.114. According to ONS Annual Population Survey data for the period January 2014 - December 2014, The FEMA has a high concentration of jobs in the Public administration, education & health sector (32% of all jobs in the FEMA), followed by the Banking, finance & insurance sector (20%) and the Distribution, hotels & restaurants sector (16%). Conversely, it has a low concentration of jobs in the manufacturing and construction sectors (Figure 2-3).

[14] Method of travel to work, 2011 Census
[15] West of England LEA 2015

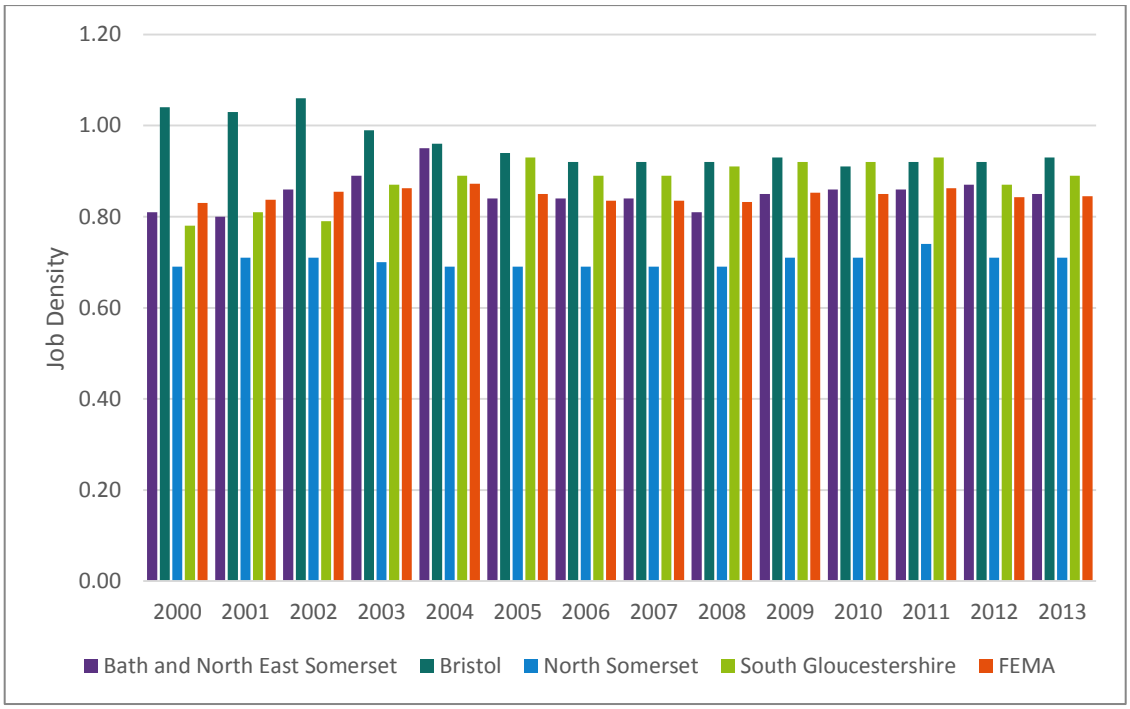
Figure 2-2 FEMA jobs by broad sector



Source: Annual Population Survey - Workplace Analysis, ONS

2.115. According to the current 2013 ONS data, the FEMA had a jobs density of 0.85 compared to the South West's 0.83. This means there are 0.85 jobs for every resident aged 16-64 in the FEMA (Figure 2-4).

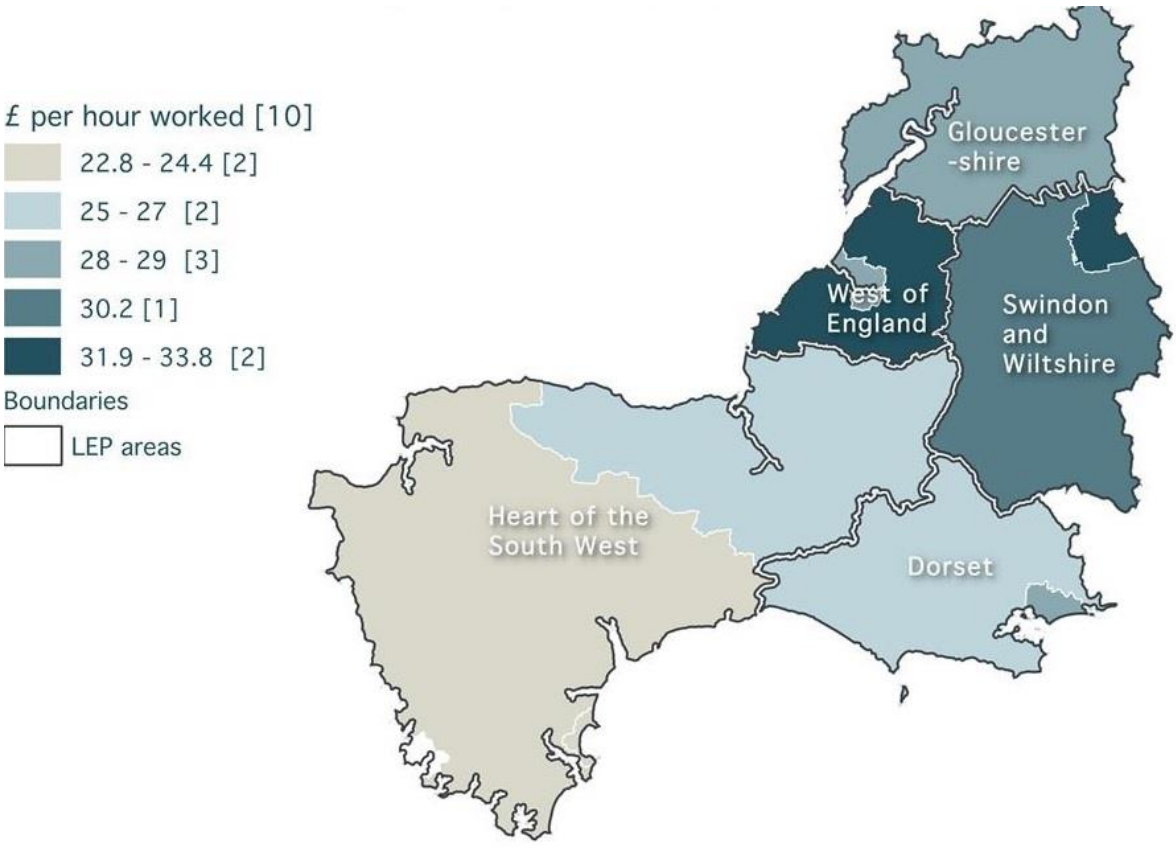
Figure 2-3 Job Density



Source: ONS

2.116. Productivity is high in the FEMA. In 2011, each job in the FEMA produced an average of £47,100 in GVA, which was higher than the Great Britain average (£44,700). Within the West of England, GVA per job was highest in South Gloucestershire (£52,600) and Bristol (£47,700) and lower than the national average in North Somerset (£40,900) and Bath & North East Somerset (£41,600).[16] This is shown in Figure 2-5 below:

Figure 2-5 GVA per hour worked in 2013 NUTS 3 areas in South West of England



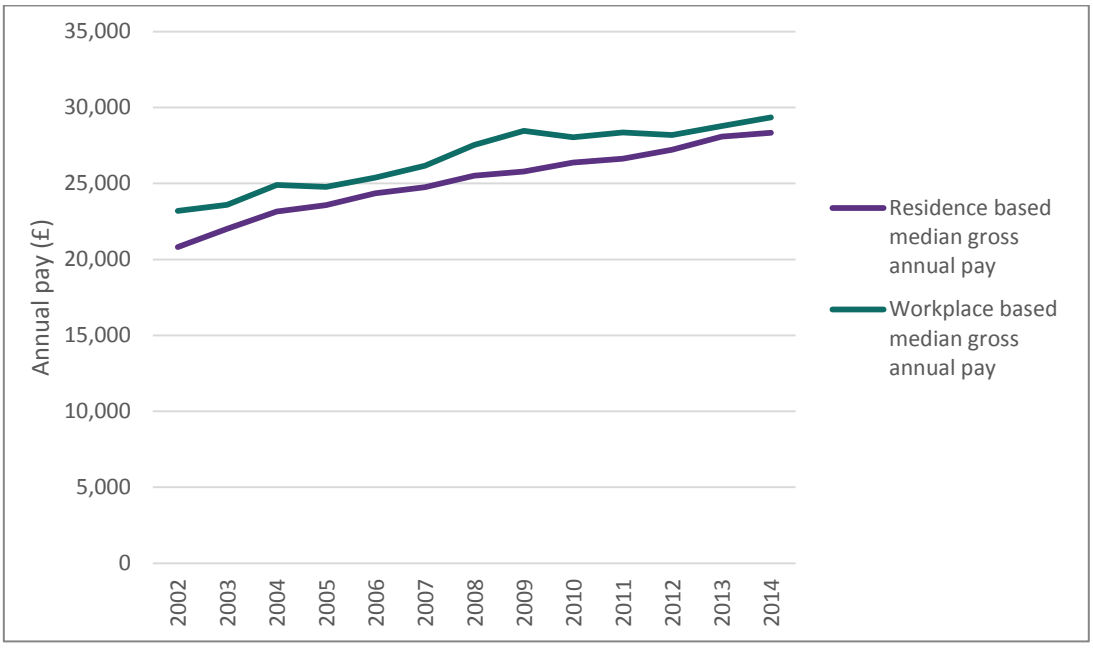
Source: ONS. Contains Ordnance Survey data © Crown copyright and database rights 2015

2.117. Residence and workplace based earnings have maintained a similar level in the FEMA over the period 2002 to 2014 (Figure 2-6); apart from a change in residence workplace based earnings during the beginning of the recession (2008/2009).

2.118. The knowledge economy has a significant presence in the local economy of the West of England. According to the West of England Local Economic Assessment (LEA) (2015) the WELEP area has the highest presence of knowledge economy firms after Oxfordshire and Thames valley Berkshire[17]. It also has a high rate of patenting, which is an indicator of an innovative economy, with 127 patents per million of population. The WELEP area has the 9th highest level of patenting out of 39 LEP areas[18].

[16] Workplace based GVA, NUTS3, 2011
[17] WoE LEA, Athey Consulting (2015) p53
[18] *Ibid* p52

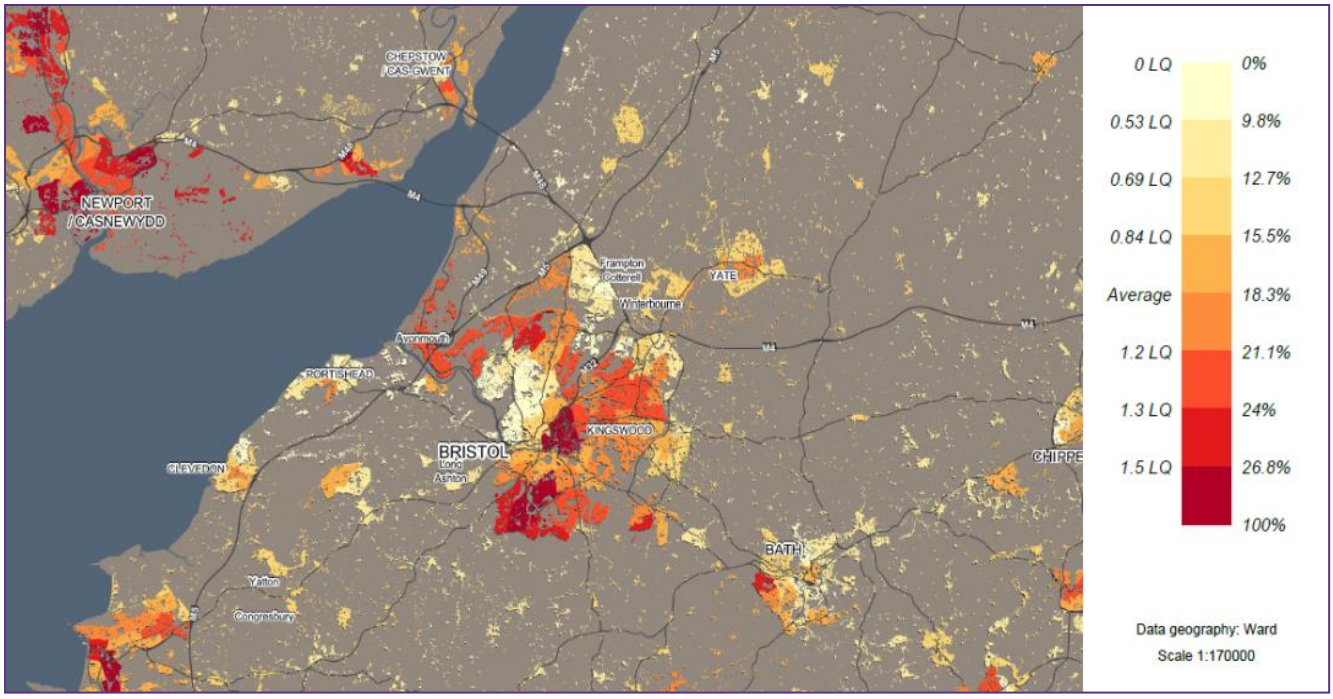
Figure 2-6 Median gross annual pay - full time workers



Source: Annual survey of hours and earnings

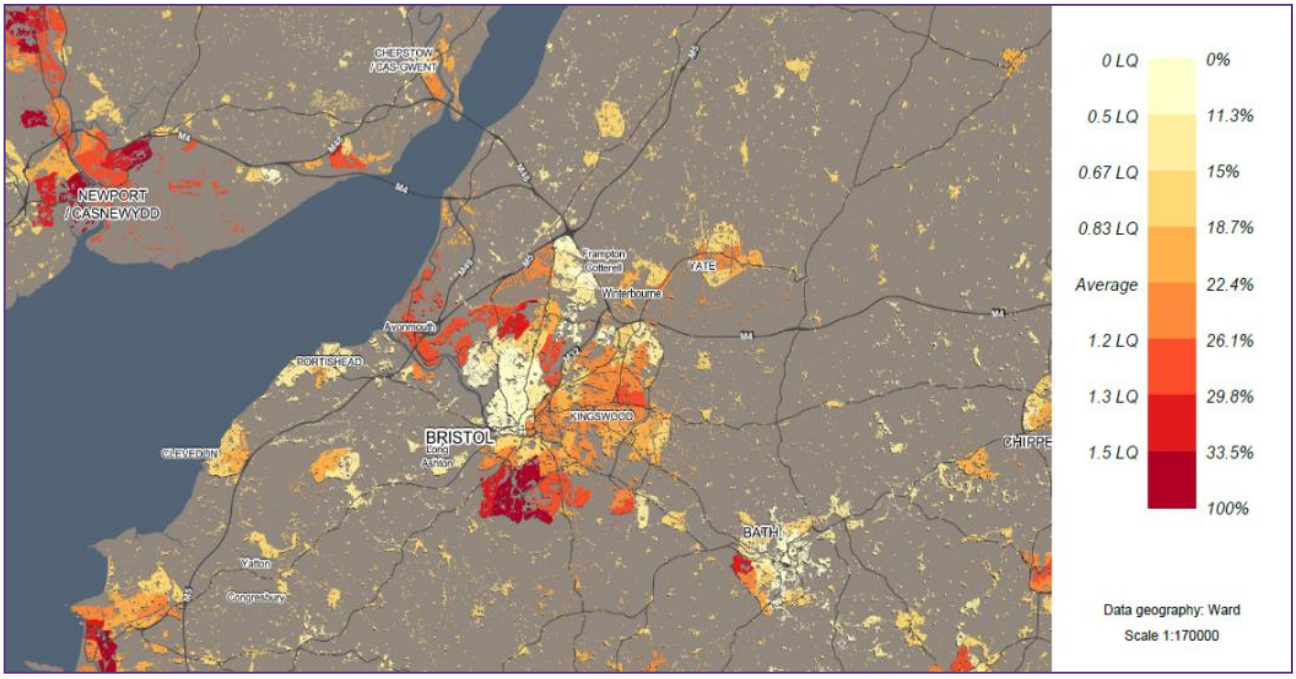
2.119. Figure 2-7 and Figure 2-8 below show indicators of deprivation in the WoE area in 'heat maps'. In these maps the darker the red the area the more deprived the area. These demonstrate how the South of Bristol (and area of inner north Bristol) generally suffers greater issues of deprivation than North Bristol and how there are also pockets of deprivation in Weston-super-Mare.

Figure 2-7 Proportion of households deprived in two dimensions



Source: 2011 Census (as visualised at www.datashine.org.uk). LQ = Location Quotient, which is the ratio of households deprived in each location compared to the national average. Areas with a higher LQ have higher proportions of households deprived and areas with a lower LQ have lower proportions of households deprived.

Figure 2-8 Proportion of residents with no qualifications



Source: 2011 Census (as visualised at www.datashine.org.uk). LQ = Location Quotient, which is the ratio of the proportion of residents with no qualifications in each location compared to the national average. Areas with a higher LQ have higher proportions of residents with no qualifications and areas with a lower LQ have lower proportions of residents with no qualifications.

Summary of Socio-Economic and Policy Review Findings

2.120. In summary, the WoE has low levels of deprivation, low levels of unemployment and a higher job density than the South West, although North Somerset has a relatively lower density and Bristol a higher density. It also has a core of highly educated workers who often work in innovative high growth sectors such as those connected to the 'knowledge economy'. However, the WoE has a growing population and relatively low skilled population (27.4% hold an NVQ4+ qualification compared to 30.6% in the South West), as such there will be a need to continue to focus on economic development and regeneration, with a particular emphasis on safeguarding local jobs and supporting and encouraging the creation of new employment opportunities and related skills/training.

2.121. In policy terms the four West of England Unitary Authorities (UAs) have ambitious growth targets. It is recognised in local planning policy that the WoE area has attributes that if exploited effectively can allow economic growth and improvements in the standard of living for local residents. Key areas of employment growth are identified in established employment nodes. These areas include Bristol City Centre (including the Temple Quarter EZ), North Bristol (Filton, Emersons Green), Bath Riverside and Avonmouth/Severnside. To help stimulate business investment these areas have been assigned either Enterprise Zone status (Temple Quarter) or Enterprise Area Status (Bath, Filton, Emersons Green, and Avonmouth).

2.122. Avonmouth Severnside has significant infrastructure requirements totalling approximately £110million that are required if the potential employment growth can be realised. Given that a large proportion of the available land is locked up in the 1957/58 ICI extant permission, which means the Council cannot require s106 contributions or CIL for infrastructure if no new applications are made, there is some uncertainty that this employment land can be delivered by 2036.

2.123. There are two other key areas where economic growth is supported in planning policy but that do not currently have an established and significant business presence. These are

Weston-super Mare (Junction 21 Enterprise Area) and South Bristol (not an enterprise area). A number of interventions and investments are being made in North Somerset to encourage business growth to redress the imbalance between jobs and homes at Weston-super-Mare and reduce the need to out-commute. South Bristol is an area where there is an aspiration to stimulate commercial demand to create jobs and address relative deprivation. In conclusion the policy review highlights the necessity for the four West of England UAs to work closely and effectively together if the economic potential of the area is to be fully realised.

3. Property Market Assessment

Introduction

3.1. This section provides an assessment of the West of England market for B-class uses drawing upon the findings of the stakeholder workshop, market agent consultation and data sources such as the Estates Gazette (EGI) commercial property database. It offers 'bottom-up' market intelligence that complements the 'top-down' quantitative analysis described in the demand assessment in chapter 6.

3.2. This section identifies 'market signals', such as vacancy rates, stock and rental levels by location and property type. It also includes a summary of our property market research, it provides detail on recent market activity across the WoE area according to the main property market indicators, including rents, investment deals and leasing activity and discussions with local property agents. It also assesses key demand drivers and potential sources of competition to the WoE economy and commercial property market from other UK cities and regions.

Consultation

3.3. Bottom up 'market intelligence' is a critical element to feed into the overall evidence base. PPG states that '*plan makers should liaise closely with the business community to understand their current and potential future requirements*'[19]. A summary of the findings of the consultation with stakeholders and market agents and how it feeds into the study is provided below.

Stakeholder Workshop

3.4. On 16th June 2015 a stakeholder consultation event was held in Bristol City Centre. The consultation event was attended by stakeholders representing local authorities, local businesses, developers and property agents active in the sub-region (the list of organisations attending the consultation event is presented in Appendix A).

3.5. The purpose of the consultation event was to capture local perspectives on the sub-region's economic growth prospects, challenges and opportunities and their implications for the supply and demand for employment land and premises.

3.6. It should be noted that the consultation feedback discussed in this section reflects the views of the stakeholders that expressed it and does not necessarily coincide with the views of the WELEP or the individual local authorities.

Property Market Agent Consultation

3.7. Property market agents were contacted by telephone. A list of agents contacted is provided at Appendix A.

Consultation questions

3.8. Consultees were invited to debate, express views and conclude on the following questions:

- What is the relevant FEMA for the West of England?
- Are there any sub-areas within the FEMA?
- Can the WoE area be defined by different business typologies (i.e. what are these and where are they?)
- What is the likely demand for commercial space in WoE area to 2036?

[19] PPG paragraph 030 Ref ID: 2a-030-20140306

- Are there any issues that need addressing to unlock this growth potential i.e. public transport/infrastructure etc.?
- Are the key WoE growth areas/sites viable? e.g. 1 EZ, five EAs, South Bristol?
- Is there any evidence of market failure in any area? If so what could be done to address it?
- What are the key future growth sectors? Are there any potential constraints to their development and what could be done to address them?

Key consultation findings - FEMA

3.9. In summary, it was concluded that the relevant FEMA was the same as the WoE area (i.e. Bristol, South Glos. North Somerset and BANES). It was acknowledged that rural parts of North Sedgemoor along the M5 corridor could be included in the FEMA as a large percentage of the population living there commute north to the Bristol sub-region.

3.10. There are also linkages between Bridgwater and employment areas on the M5 corridor. However, following the 'best-fit' to existing boundaries principle it would not be rational or appropriate to include parts of Sedgemoor District in the West of England FEMA. However, it was felt that economic impacts on Sedgemoor generated by the West of England FEMA should be assessed and taken account of in planning policy. Although there were clear linkages between the West of England and surrounding economic centres such as Swindon and Gloucestershire these areas are their own FEMAs and so it was concluded that they should not be included in the WoE FEMA.

Key consultation findings – Sub-areas

3.11. Sub-areas within the FEMA and their justification were assessed by consultees to be as follows:

- **Bristol City Centre**; which includes the central office areas and industrial, trading and logistics estates providing supply chain links to the city centre and surrounding housing and retail areas.
- **North and East Fringe of Bristol**; which includes Filton which has a high percentage of large industrial occupiers, Emersons Green which includes the Bristol Science Park and potential for further international science based occupiers and Aztec West which is home to numerous major industrial and logistic firms and large firms occupying grade A office space.
- **Avonmouth/Severnside**; a large traditional industrial area focussed on the Port of Bristol and alongside the M5 and including many large potential development sites for mainly industrial, logistics and utilities occupiers
- **Central Bath**; which provides generally smaller format niche business accommodation for occupiers who seek to be located in Bath due to its unique environmental characteristics
- **M5 Corridor/Weston-super-Mare**; Weston-super-Mare is a sufficiently large settlement and far enough away from Bristol to have a degree of economic self-sufficiency and thus its own sub-market. Due to its proximity it also forms part of a M5 corridor sub-area that stretches into Avonmouth around Portbury and includes Clevedon, Nailsea and Portishead. It typically provides accommodation for industrial and logistics firms seeking better value accommodation next to M5 and close to Bristol and other large population centres.
- **South Bristol**; this area does not currently contain significant employment areas but it has the potential to in the future if infrastructure such as the South Bristol link road is built and major housing and employment growth is realised. This could include areas adjoining but currently outside the urban area if it is deemed appropriate to release sites from the green-belt.

3.12. See Figure 4-13 for a map clarifying the FEMA sub-areas. The sub-areas described above are generally also typified by a particular business space typology. For example North Bristol has mainly high quality business park accommodation serving large international firms and Avonmouth has large industrial/warehousing and logistics premises and utilities infrastructure such as Ports and power stations.

3.13. However, there is also a generic typology that appears across geographic areas. This includes mixed business space providing accommodation for firms that serve local markets. For example there are numerous small business parks and industrial estates that provide relatively smaller, good value accommodation for generally smaller logistics firms, trade merchants, local offices and industrial supply chain firms. This typology occurs consistently across the FEMA from Thornbury and Yate in the north of the study area to Weston-super-Mare and Midsomer Norton in the south.

Key consultation findings - demand

3.14. The consultees felt that demand for employment space was likely to be strong in the period to 2036. Key growth sectors are generally those linked to the knowledge economy. Property related firms and professional services are also key sectors. It was felt that high tech manufacturing in the Bristol and West of England area was likely to continue to be strong and it was not always appropriate to extrapolate national trends of declining demand for industrial space to the West of England region, as is generally the case with employment forecast models. Given the strategic location of Bristol on the M5 and M4 with gateway access to South Wales and the South West of England and a high population, logistics will continue to be a key sector for the region.

3.15. It was felt that there is an opportunity for companies to capitalise on highly skilled and specialised workers and entrepreneurs ‘drifting’ out of London to Bristol due to the relatively cheaper and better quality of life and existing critical mass of knowledge economy firms. This phenomenon is already occurring but could gather more momentum if the right sort of work space and conditions are provided and if London continues to ‘overheat’ in terms of its housing and employment market.

3.16. The key growth areas of Temple Quarter EZ and five enterprise areas were seen as being the key areas of future employment growth. Central and North Bristol and Bath sub-areas are likely to experience the highest demand due to their existing core of high growth companies and established available employment areas. Proximity to the Bristol core population area was also identified as a key driver of demand for employment space generally.

3.17. Reservations were expressed by some consultees about the likely take up of space at Weston Junction 21 enterprise area. It was felt that distance from the main Bristol population area could deter potential speculative developers and occupiers[20]. However, it was also pointed out that Weston has links to nearby the Hinkley Point power station development and a strong focus on professional services, advanced manufacturing and food industries. There is also evidence of market demand for Junction 21 in the form of developer enquiries for a range of business uses including office, industrial and warehousing so on balance it can be concluded that take up of the available employment land there is likely to occur as planned in the planning period.

Key consultation findings – constraints to growth and market failures

3.18. Consultees felt that infrastructure constraints at Avonmouth/Severnside (primarily flood risk and transport) mean that business space take up could be slow in this area. Also the

[20] Prior to 2013 it is recognised the take up of commercial land was approx. 1.3 Ha p.a. across the area (1996-2013), since then in J21 EA 10Ha of employment land has been built on, under construction or about to be. Several other planning approvals now in place. It is arguably understandable that some agents have a less optimistic view of future take up at J21 EA but this appears to be based on historical knowledge rather than an awareness of recent events.

fact that most of the available land is better suited to industrial and logistics firms as opposed to office business park occupiers could restrict future demand. On the other hand, the group felt that Avonmouth/Severnside is well located near Bristol and the M5 corridor and so will always attract occupiers due to the established business base, infrastructure and operations that exist there such as the Port of Bristol, Portbury and Seabank Power Station.

3.19. The lack of employment space in South Bristol and the relative lack of connectivity with Bristol airport was felt to represent an example of market failure. For example, if a map of the West of England area including all employment areas and major infrastructure is looked at (See Figure 5-5 below) it is striking that there is a relatively barren area south of Bristol centre. Also, the airport appears isolated from employment areas which is not typical of most city airports across the country.

3.20. The main reason for the lack of employment space in this area is that the South of Bristol is a relatively deprived area and due to the lack of previous investment in employment space a state of relative inertia exists. Consultees felt that to break this vicious cycle there would need to be proactive public sector led initiatives. These could include delivering the South Bristol link road and Homes and Communities Agency (HCA) Housing Zone initiatives and funding packages.

3.21. There was felt to be a general lack of cheaper office start up space. Most companies requiring cheap office space are only looking to pay around £5 per sq. ft. (£55 per m^2). This yield does not provide enough return for speculative developers and so they typically do not build new office space (which is what these start-up companies really require). As a result many start-up companies are forced into older declining stock. This is especially an issue in places like Avonmouth/Severnside and other non-city centre locations. This is an issue as it is in these locations that much of the potential future available land is located. Modular offices was seen as one potential solution along with public sector support. Older, declining stock that might appeal to start-ups (or be their only option) is under pressure from residential development and eased planning for change of use to residential, further highlighting the shortage of such space.

3.22. The current performance issue in the West of England's local schools was felt to present a risk to future growth prospects. The risk is that a significant skills gap could start to occur that means that firms wanting to locate in the area would be deterred due to the lack of appropriate workforce skills.

Property Market Indicators

3.23. Property market indicators were analysed for the West of England area including; rents, investment deals and leasing activity. This information was sourced from EGI market data, the latest commercial property market reports and discussions with local commercial property market agents.

Rents

Office

3.24. According to EGi data, rents for office premises (B1a) currently on the market across the WoE area range between £22 for secondary to over £300 per m^2 for Grade A office. Local commercial property agents identified that in the Central Bristol area office premises typically achieved rental values of £205 for secondary to £307 per m^2 for Grade A. Out of town Bristol office parks were slightly lower average monthly rental values at between £160 to £230 for secondary to Grade A respectively.

3.25. Comparing similar nearby areas, Bristol has higher office rents than Swindon, Oxford and Cardiff. Only Reading and Central Birmingham as comparator areas (excluding London) have higher office rents. This is mainly due to the size of Birmingham as an economic

area and Reading's proximity to London and the high value Thames Valley market area. Figure 3.1 below shows office rents in comparable areas.

Figure 3.1 Average monthly rental value of office floorspace (2015 £ per m^2)

Source: Atkins based on EGI data, Agent consultation and Colliers Market Report, 2015

Note: OOT is 'out of town'.

Industrial

3.26. Rents for the majority of industrial premises (B2/B8) currently on the market range between £11- £70 per m^2, according to EGI market data. Local commercial property agents identified that in the West of England area industrial premises typically achieved rental values of £40 - £80 per m^2 for secondary large sheds to prime small sheds respectively.

3.27. When compared to similar nearby areas, Gloucester, Swindon and Didcot, Bristol has higher industrial rents than all but Didcot. Demand for industrial property in Didcot is connected to the Oxfordshire 'knowledge spine' and Science Vale UK and is one of the UK's most vibrant high tech industrial areas. Bristol has the highest industrial rents for prime small sheds. Market agents indicate that rents for these smaller sheds are increasing. This reflects the high demand for smaller light industrial units in Central Bristol connected to the 'cultural and creative industries/knowledge economy'. Overall this picture demonstrates that demand for industrial units in Central Bristol is healthy and potentially positive. Figure 3.2 below shows average monthly rents for industrial sheds in Bristol, Didcot, Swindon and Gloucester.

Figure 3.2 Average monthly rental value of industrial floorspace (2015) £ per m^2

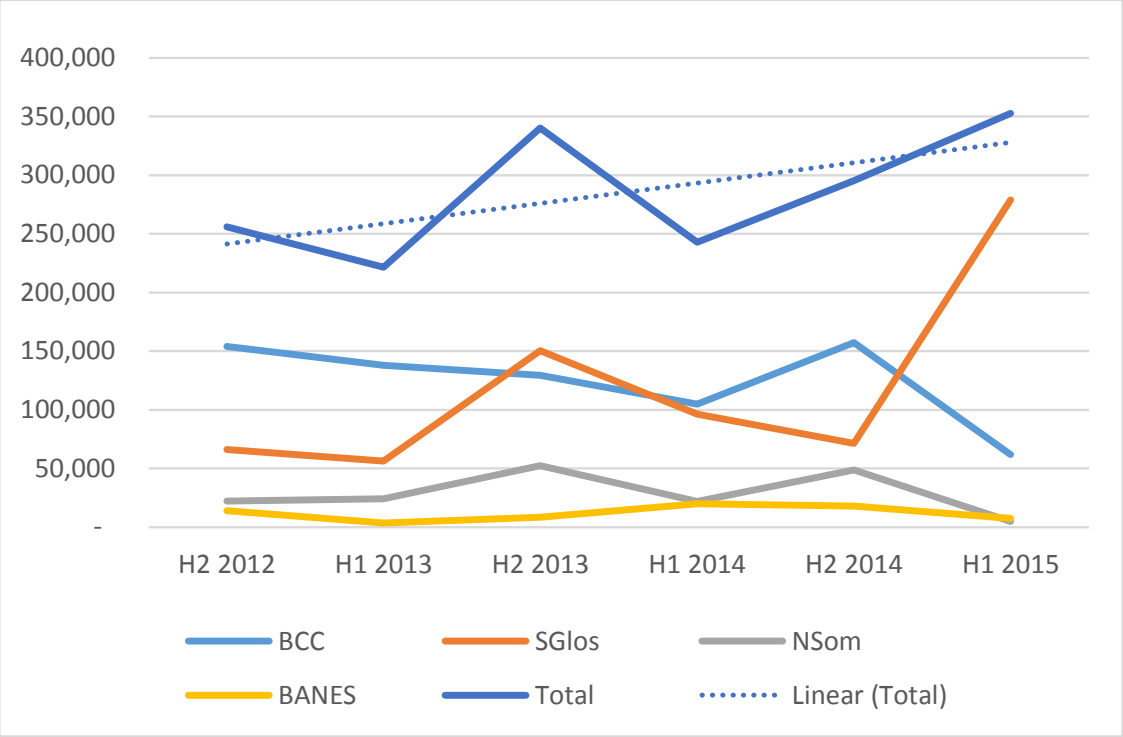
Source: Atkins based on EGI data, Agent consultation and Colliers Market Report, 2015

Investment Deals

3.28. Analysis of investment deals from EGi data for the past three years demonstrates a generally steady picture across the WoE area. Statistically there has actually been a steadily increasing trend throughout the period, although this is skewed by the deal in 2015 for Rolls Royce East site in South Gloucestershire at approximately 260,000 m^2. Also the data for first half of 2015 are likely to be relatively underrepresented due to the time lag in reporting recent deals to EGi. Nonetheless the picture is one of healthy demand for employment space.

3.29. In total there has been 1.7m m^2 of business floorspace traded in the three years to date. Sales form the largest percentage of this total at approximately 910,000 m^2 (53%), followed by leases at 762,500 m^2 (45%). Figure 3.3 below shows deals during the last three years in the WoE area.

Figure 3.3 Investment Deals in WoE area H2 2012 to H1 2015 (m^2)



Source: Atkins based on EGI data (2015)

Availability Rates

Office

3.30. EGI data on available commercial property in the WoE area was analysed. This shows that there is 459,687 m^2 of office (B1a/b) floorspace currently being actively marketed across the WoE. This is approximately 14% of the total office stock (3,226,525 m^2.). In terms of individual UA's, North Somerset has the highest rate of office availability at 22%, followed by Bristol and South Gloucestershire at 14% and BANES at 10%.

Industrial & Warehousing

3.31. EGI data shows that 691,140 m^2 of B2/B1c floorspace is being actively marketed across the WoE area. This is approximately 18% of the total commercial stock. The UA with the highest industrial availability rates is South Glos at 30%. This largely relates to high available stock in Avonmouth/Severnside. BANES only has 2% availability rate which is very low and reflects the limited amount of industrial floorspace in Bath.

3.32. Warehousing space (B8) has an availability rate of 8%. South Glos has a rate of 18% which, as per the industrial availability rate, relates to the large amount of available industrial sheds at Avonmouth/Severnside. Other areas have very low rates suggesting healthy and potentially constrained demand.

3.33. Healthy availability rates or optimum 'frictional vacancy rates' are typically between 5 and 10%. This allows the market to operate efficiently as new occupiers entering the market have a reasonable choice of available property to take up. If the rate is too low this could deter potential occupiers from setting up business in the area and might persuade them to look at other areas. This could negatively affect the local economy.

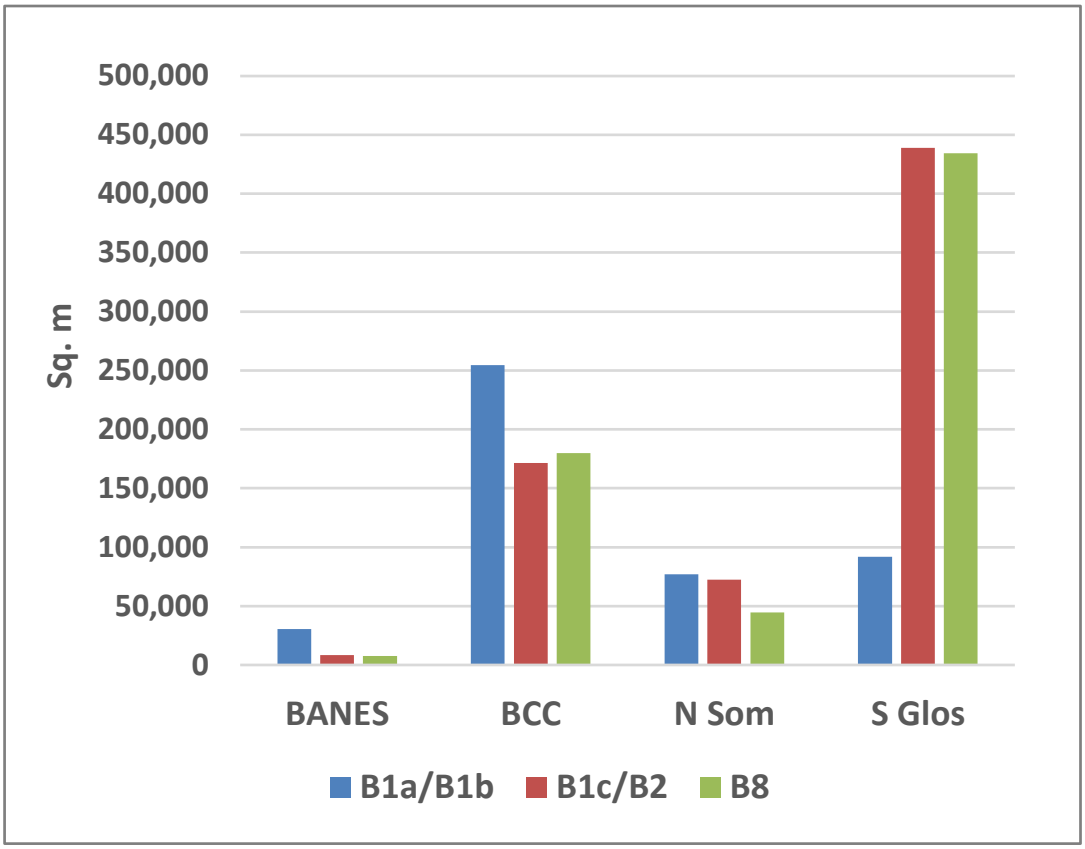
3.34. Actively marketed office, warehousing and industrial floorspace in the West of England, by quantity of floorspace and percentage of the total floorspace is shown in Table 3.1 and Figure 3.4 below. Figure 3.5 shows the availability rates by percentage, land use and UA.

Table 3.1: Actively marketed commercial space in West of England

Unitary Authority (UA)	B1a/b		B2/B1c		B8	
	Sq. m	% of total	Sq. m	% of total	Sq. m	% of total
BANES	30,557	10%	8,389	2%	7,592	2%
BCC	254,347	14%	171,481	15%	179,966	6%
N Somerset	76,977	22%	72,431	10%	44,730	2%
S. Glos	91,941	14%	438,840	30%	434,266	18%
Total	**453,822**	**14%**	**691,140**	**19%**	**666,553**	**8%**

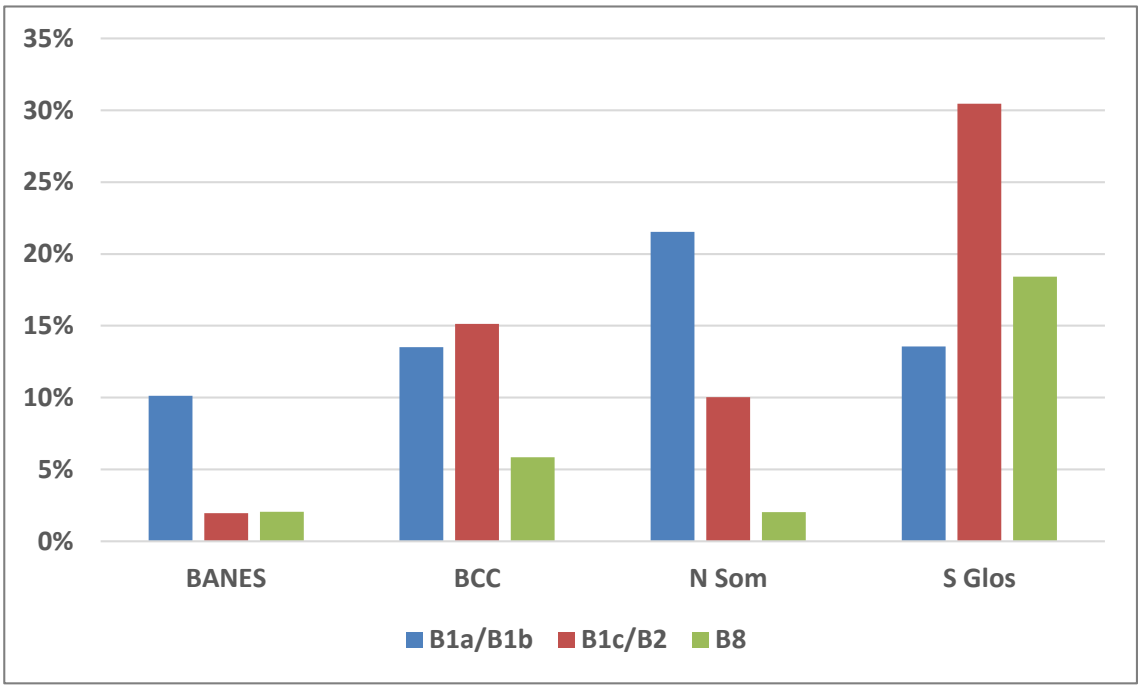
Source: Atkins based on EGI data (2015)

Figure 3.4: Actively marketed commercial space in West of England



Source: Atkins based on EGI data (2015)

Figure 3.5: Actively marketed commercial space in West of England (% of total UA stock)

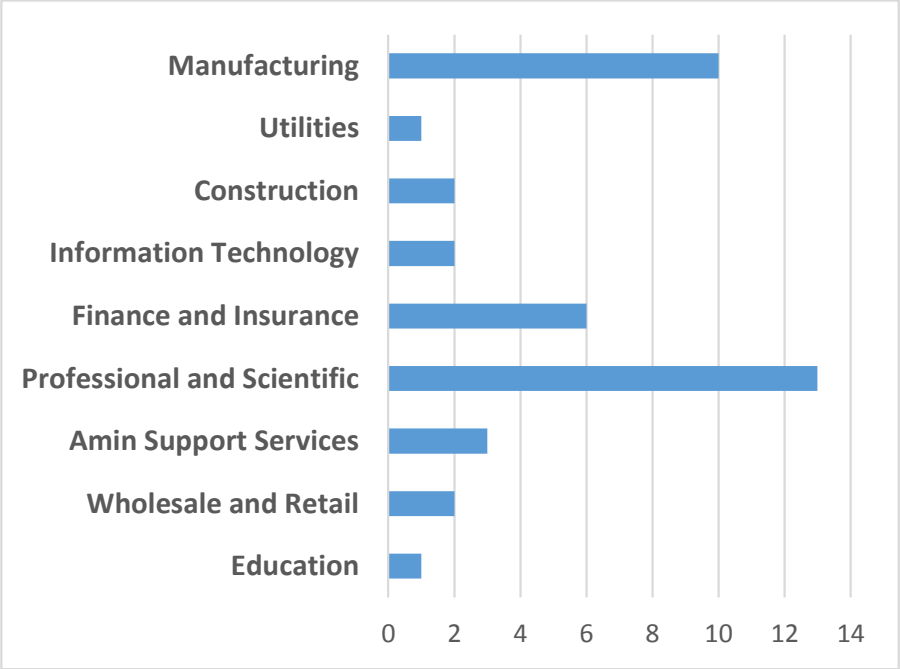


Source: Atkins based on EGI data (2015)

Key Firms and Sector Analysis

3.35. The 2015 Local Economic Assessment (LEA) assesses some of the key sectors and firms that will drive future growth in the WoE. 40 large companies have their national headquarters in the WoE. The sectors of these companies are shown in Figure 3.6 below.

Figure 3.5: Large Companies with HQ in West of England



Source: WoE LEA (2015)

3.36. The top ten companies with their UK HQ in the WoE by number of employees are shown in Table 3.2 below. This shows that professional and scientific services are key sectors for the WoE:

Table 3.2: Top 10 West of England Companies with HQ in WoE

Company	District	UK Employees	Sector
Mitie Group PLC	South Gloucestershire	62,930[21]	Professional, scientific and technical activities
Imperial Tobacco Group PLC	Bristol	37,900	Professional, scientific and technical activities
Airbus Operations Ltd	South Gloucestershire	8,660	Manufacturing
PPL WEM Holdings PLC	Bristol	3,030	Professional, scientific and technical activities
Integral UK Holdings Ltd	South Gloucestershire	2,610	Professional, scientific and technical activities
Kerry Ingredients (UK) Ltd	South Gloucestershire	2,000	Manufacturing
Tribal Group PLC	Bristol	1,460	Education
Yeo Valley Group Ltd	North Somerset	1,400	Manufacturing
Matthew Clark (Holdings) Ltd	Bristol	1,210	Professional, scientific and technical activities
WT Burden Ltd	Bristol	1,210	Professional, scientific and technical activities

Source: WoE LEA (2015)

Other Major Commercial Developments in Other Areas

3.37. This section identifies forthcoming major commercial development schemes or growth initiatives in neighbouring areas that could potentially impact on the West of England economic aspirations and competitive advantage. These other areas and/or future developments are selected after a process of literature review, consultation with stakeholders and professional judgement.

Hinkley Point C

3.38. Hinkley Point C is a proposed new nuclear power station being developed by EDF Energy in nearby West Somerset/Sedgemoor. The estimated cost of the project is approximately £25billion. The project has received planning permission and much of the initial ground work has been completed. A Final Investment Decision (FID) is awaited for installation of the plant itself, with the date to be confirmed. The project promoters expect there be 900 permanent jobs created for more than 60 years and around 25,000 employment opportunities throughout the estimated 10 year construction period.

3.39. The project is such a large project that it could have an effect on the West of England in terms of drawing construction and related workers out of the West of England market. This would necessitate the effective implementation of proactive skills and employment ‘upskilling’ programmes to ensure the benefits of the scheme to the local area are maximised.

[21] Note this information is taken directly from the West of England Local Economic Assessment. The employee numbers for some of these companies are likely to include an element of employees registered as working at the WoE company headquarters but actually working in other parts of the country e.g. cleaning contractors working for MITIE in other parts of the UK. Also, the sectors are assessed at the highest level of industrial sector classification.

3.40. The project could also have the positive effect of creating supply chain linkages that spatial planners should recognise and ensure that appropriate land is allocated to meet expected demand. This project has the potential to affect the M5 corridor and especially Weston. Also, South Bristol fringe as it is the closest areas within the Bristol urban area to the project. It should also benefit the whole West of England region and the wider South West nuclear industry working between Plymouth and Cheltenham.

3.41. There are plans to potentially create a new nuclear plant at the currently decommissioned Oldbury Nuclear Power Station in South Gloucestershire. However, there is considerable uncertainty at this stage whether and when this will be pursued and so it is not considered in this section.

Oxfordshire Commercial Development Growth

3.42. Significant commercial growth is projected to occur over the next 20 years in Oxfordshire. Accordingly significant new employment land provision is being planned for to meet this demand. For example, Cherwell District Council recently submitted a Local Plan for examination that allocates 200 hectares of new employment land. Vale of White Horse propose 219 hectares of employment land and Oxford City is undergoing a strategic growth and green belt review but is likely to be able to accommodate significant amounts of new employment space.

3.43. Oxfordshire's demand is largely driven by the high tech manufacturing and science based research sectors linked to Oxford City/University and Science Vale UK (Harwell, Culham and Milton Park). There is also a significant logistics hub around Didcot. Also, Bicester is planned to become a new garden city with 13,000 new homes and 21,000 new jobs created, many in green technologies. After many years of suppressed demand due to a lack of available land, Oxfordshire is currently undergoing a step change in its growth prospects.

3.44. Although, there are positive economic links between the West of England and Oxfordshire, with some of the positive effects of Oxfordshire's growth likely to spill over to the WoE there is also the potential for competition from Oxfordshire to negatively affect the WoE's growth prospects. It is therefore essential that sufficient land, space and functional infrastructure and transport links are provided in the WoE for companies that seek to trade with the Oxfordshire sub-region.

3.45. There could also be an element of competition in that currently Bristol is seen as a popular location for firms wanting to be close to the London/Thames Valley market but not actually in London. When significant amounts of employment land is provided in Oxfordshire this could present an alternative for those firms. Also, there is significant projected growth in Swindon, for example the 2012 Swindon Economic Strategy identifies 120 ha of new employment land[22], which in accumulation with Oxfordshire's growth could exacerbate this issue.

HS2/3 and Northern Powerhouse

3.46. The 'Northern Powerhouse' initiative, which includes major infrastructure improvements to improve linkages between the North of England, London and the Midlands (HS2 and HS3) as well as internal transport improvements linking the major northern cities and the devolution of budgetary powers, could create competition for the West of England sub-region. Currently the WoE enjoys a comparative advantage due to its proximity and connectivity to London. However, the Northern Powerhouse with its 15million population could start to create completion to WoE when travel times to London are reduced. This creates an additional incentive for the WoE to provide favourable conditions for the business community, including sufficient and appropriate employment land and infrastructure and environmental improvements.

[22] Swindon Borough Council, An Economic Strategy for Swindon 2012-26

Conclusion

3.47. The property market assessment is based on the views of key stakeholders and market agents and analysis of property market data. The overall conclusion is that the WoE has a healthy employment land market and there are expectations of growing demand for the future, especially in central and north of Bristol. The WoE area, although containing different elements and characteristics, was considered to be a natural 'economic area'. The WoE FEMA includes Bath despite it being a separate housing market area from Bristol. This is because as a standalone economic market area in the context of the much greater Bristol focused economic market area, Bath is not considered significant enough to warrant a distinct FEMA.

3.48. The WoE area has many natural assets including a skilled and educated workforce, a good quality of life to attract new workers and entrepreneurs, an existing critical mass of companies linked to high growth sectors such as high tech manufacturing and the knowledge economy. The WoE is strategically located next to the M4 and M5 close to London and is a gateway to the South West and South Wales markets. It also has a large active port and an international airport. These factors mean there is a significant and stable industrial and logistics base.

3.49. However, there are factors that should be addressed if the WoE is to realise its full economic potential in the future. Although there are a lot of highly educated and skilled workers to fulfil future professional roles there is a potential skills shortage for non-professional occupations. This will be important to address future growth as well as to capitalise on major projects such as Hinkley Point.

3.50. There is also likely to be competition from other areas such as Oxfordshire and the Northern Powerhouse that mean that the WoE must provide appropriate land and space for businesses seeking to locate in the WoE. There are questions as to where this land should be provided. Currently, there is a large amount of available land in Avonmouth/Severnside that without significant investment in infrastructure and environmental improvements may not be suitable to meet the future needs of businesses. There is also an opportunity to stimulate demand in the South of Bristol to address deprivation and to create better linkages to Weston-super-Mare in the south of the WOE area.

4. Functional Economic Market Area (FEMA) Assessment

Introduction

4.1. This section conducts analysis to determine the appropriate functional economic market area (FEMA) for the West of England. It sets out the approach to defining the FEMA and then proposes a definition of the FEMA for use in planning to meet economic development needs in the WoE area. Sub-areas are also explored. The assessment is based on the comments of stakeholders and market agents consulted and a review of range of data and literature including the West of England LEA and the Wider Bristol and Bath Strategic Housing Market Area Assessments (SHMA).

The purpose of defining functional economic market areas

4.2. The NPPF provides the planning policy basis of defining a FEMA. It states the following[23]:

- '*Local Planning Authorities should have a clear understanding of business needs within **economic markets** operating in and across their area' (para 160 NPPF)*

4.3. The primary reason for defining a FEMA in spatial planning terms is so sufficient land can be provided through Local Plans to meet the economic development needs of existing and potential future businesses within that FEMA. This is reflected in the following NPPF statements:

- '*Local Planning Authorities should support existing business sectors, taking account of whether they are expanding or contracting and, where possible, identify and plan for new or emerging sectors likely to locate in their **area**. (para 21 NPPF), and;*

- '*Local Planning Authorities should plan positively for the location, promotion and expansion of **clusters or networks** of knowledge driven, creative or high technology industries.' (ibid).*

4.4. Based on the above NPPF statements, one of the key roles of the economic development needs evidence base is to define the relevant 'area' and 'economic market' so that this FEMA can be treated as the basic unit of measurement in terms of assessing employment land supply and demand. This exercise is performed so that the needs of businesses within the defined rational market areas can be properly and positively planned for.

4.5. There is also an overarching emphasis of 'positive planning' in the NPPF[24]. In this context it means that an element of 'economic ambition' should be factored into the FEMA analysis. It should not just necessarily be an assessment of the 'business as usual case' or what is already there i.e. to answer the question 'what is the wider market area that has potential for future economic growth?' This element of the FEMA analysis would give significant weight to economic growth strategies, such as the West of England SEP, and consider what spatial level the strategies were produced at as a basis for defining the FEMA. This approach aims to avoid spatial planning for economic development needs being performed at a smaller and less ambitious level than the rational economic market i.e. simply at the local planning authority level as was often done in the past.

[23] Relevant words that require analysing and defining in a FEMA exercise such as in this section are highlighted and underlined.
[24] NPPF (2012) para 14

4.6. In 2010 the Department of Communities and Local Government (DCLG) prepared a note which discussed the concept of a FEMA and its usefulness for economic policy analysis[25]. This 2010 note adds further context to the question of why and how the definition of a FEMA is required. This can be seen in the following statements:

- *'Economic analysis is best undertaken at the spatial level at which the **relevant economic market** operates'*[26]

- *'Economic flows often overlap Local Authority boundaries. This means that the functional area over which the local economy and its key markets operate will not necessarily adhere to administrative boundaries. Instead, key economic markets broadly correspond to **sub-regions** or **city regions** – known as functional economic market areas (FEMA).'*[27]

4.7. In conclusion, the NPPF and 2010 DCLG FEMA guidance note demonstrates that defining the FEMA involves identifying an area with a 'critical economic mass', both now and with potential to have so in the future i.e. an area with strong supply chain and economic linkages and the ability to expand in a relatively self-contained way in the future. Also, in suggesting that FEMAs broadly correspond to city regions, the guidance and policy implicitly suggests that small FEMAs focussed on administrative boundaries are likely to be inappropriate. This is because a small FEMA could hamper the 'ambitions' contained in wider strategic economic growth plans and this would go against the spirit of 'positive spatial planning' as sought by the NPPF.

Functional Economic Market Areas – An economic note

4.8. The 2010 DCLG FEMA note considered the range of alternative ways to measure FEMA boundaries, including: labour markets; housing markets; supply chains in industry and commerce; service markets for consumers; administrative areas; and transport networks.

4.9. The DCLG note reveals that there are no universal approaches to defining FEMAs. It states that there is a range of relevant information available to define a FEMA, with the most appropriate depending on what features of the local economy are being considered. Potential factors to assess are as follows:

- Labour markets: using Travel to Work Area (TTWA) data from the Census and housing markets from the SHMA.

- Transport networks: Whereas most major transport networks are determined by national requirements, local transport policy is best considered at the scale of FEMAs.

- Supply chains in industry and commerce: using data or 'bottom up' market intelligence on the flow of goods, services and information across the local economy.

- Service market for consumers: using data on the spatial area from which users of goods and services are drawn.

- Administrative and organisational areas such as Local authority boundaries and LEP areas e.g. West of England LEP area: It is within administrative boundaries that services and strategies are applied and developed, based on analyses using FEMAs. The importance of administrative boundaries therefore also needs to be recognised and often when weighing up the various considerations the final

[25] It should be highlighted that with the publication of the PPG this note is now cancelled, although the guidance in the note is still considered relevant as it provides more detailed guidance on how to define and analyse the FEMA.
[26] DCLG FEMA note 2010 para 1
[27] *Ibid* para 2

decision on the FEMA will reflect the 'best fit' to existing administrative or strategy boundaries.

4.10. The 2010 DCLG note identifies that there is an argument for analysing labour market data first using the Census travel to work data, as this is the most reliable flow data (for identifying a FEMA). This data should be supplemented with other key data from other key markets as set out above.

National Planning Policy Guidance

4.11. The PPG recommends that economic needs should be assessed in relation to the relevant functional economic market area. The PPG states that there is no universal approach to defining a FEMA. Instead, it puts forward the suggestion that a range of information should be considered depending on the basis which best reflect the drivers of the local economy.

4.12. The suggested range of information is entirely consistent with the information set out in the 2010 DCLG note (see above) with the exception that the extent of any Local Enterprise Partnership should now also be considered. In fact the first factor the PPG suggests should be considered in defining the FEMA is the extent of the LEP. The PPG therefore implicitly suggests that the LEP and the LEP growth strategy should be given strong weighting in the overall analysis of what the relevant FEMA should be.

Defining the West of England FEMA

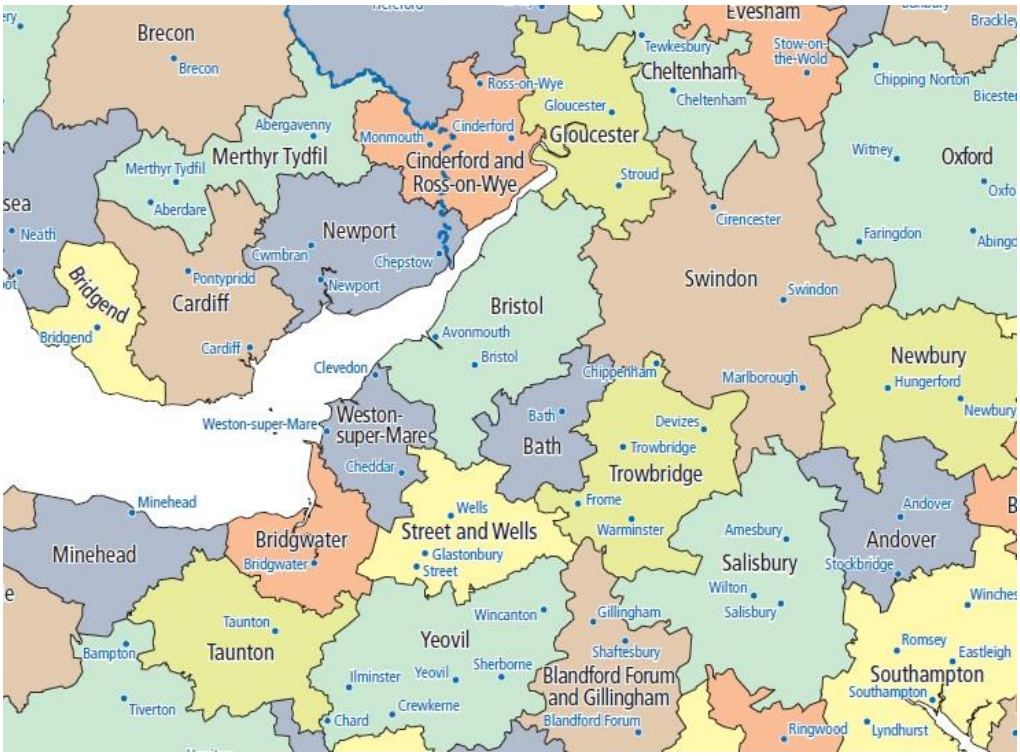
4.13. As discussed above there is no prescribed method for defining a FEMA. The remainder of this section therefore explores a variety of processes for defining the FEMA and then concludes on the appropriate FEMA for the WoE by weighing up the various sources of information.

Labour market

4.14. As set out above, the starting point for defining the FEMA is usually to first assess the relevant functional labour market and commuting patterns related to it. This is because one of the most important factors companies consider when deciding where to locate a business is the availability of labour. Most companies still rely on a local labour force, which is restricted by the distance and time its willingness to travel to work.

4.15. In this regard the first step in assessing the labour market is to use Travel to Work Area (TTWA) data from the Census. In 2015 the Office for National Statistics (ONS) produced TTWAs based on the 2011 Census. The criteria for defining TTWAs (for areas with a population of over 25,000) is that 67% of the population should live and work in the same area. This is termed the 'self-containment' rate. See Figure 4.1 below for the 2011 ONS TTWA. Note that Bristol, Bath and Weston-super-Mare are separate TTWAs and rural parts of south Stroud and north Sedgemoor are included in the Bristol TTWA.

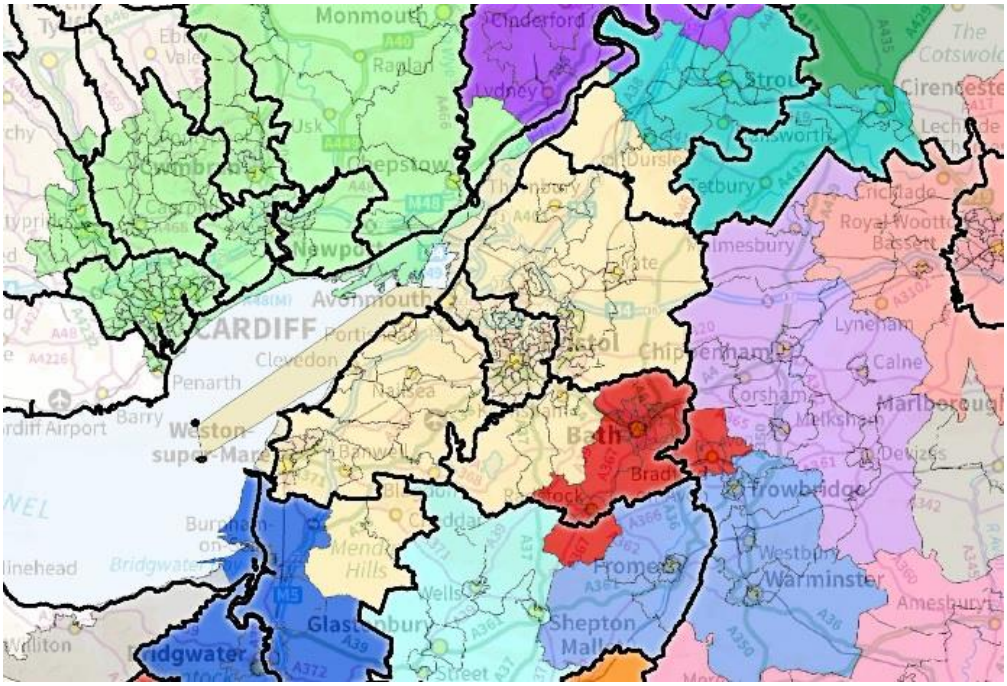
Figure 4-1 2011 TTWA Based on 2011 Census



Source: ONS (2015)

4.16. The Wider Bristol SHMA (2015) assessed the travel to work areas based on the 2011 Census before the official ONS TTWA were released in summer 2015. This is also based on a 67% self-containment rate. See Figure 4-2 below for the TTWA that formed the basis of the SHMAs.

Figure 4-2 SHMA TTWA analysis based on 2011 Census (67% containment)

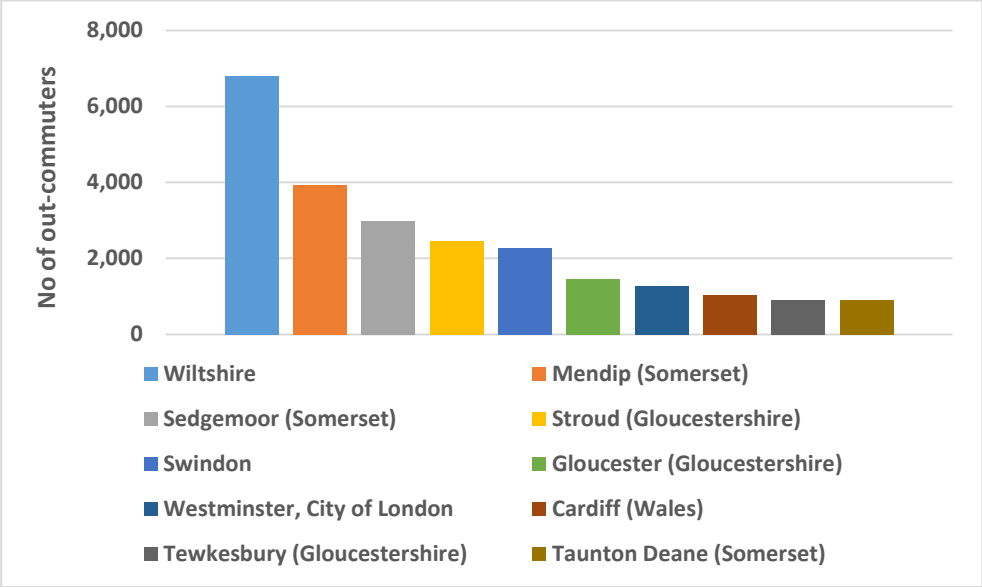


Source: Bristol SHMA (2015)

4.17. According to the 2015 West of England Local Economic Assessment (LEA), which assesses 2011 Census data, the WoE area as a whole has a self-containment rate of 89.9%. This means that of the 435,818 workers living in the WoE 391,843 work in the WoE and do not commute out. If workers that work at home, have no fixed workplace, work outside the UK or offshore are included (531,925 workers in total) the rate drops to 73.7%.

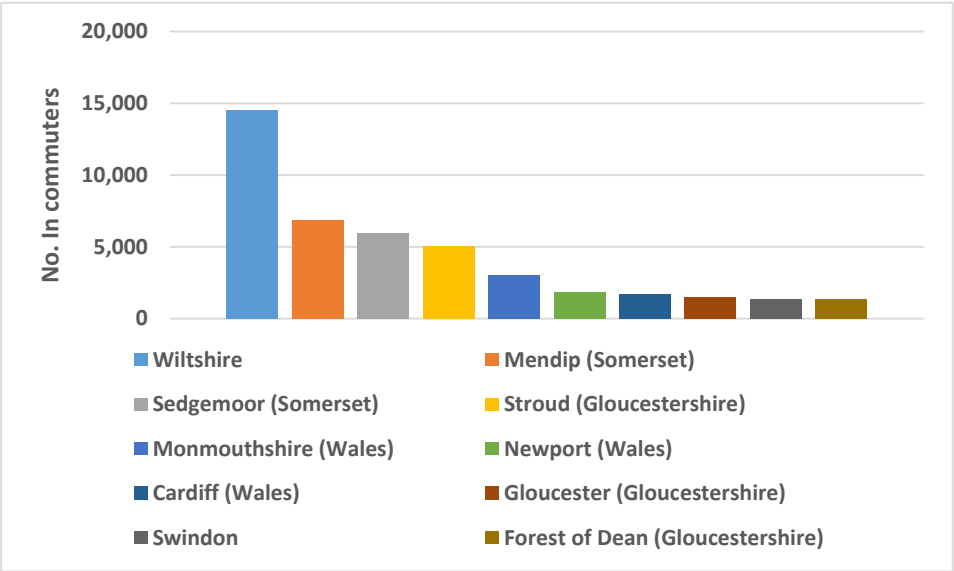
4.18. The areas that 'in-commuters' travel from, and 'out-commuters' go to for work, are shown in Figure 4-3 and Figure 4-4 below. This shows that there are stronger functional labour market linkages between Bristol and the east and south (Wiltshire and Somerset) than to the north (Gloucestershire) or west (Wales). This is likely to be due to public transport links which are generally better to the south and east and physical factors such as the Severn Estuary.

Figure 4-3 Out-Commuters - where WoE residents commute to



Source: WoE LEA (2015)

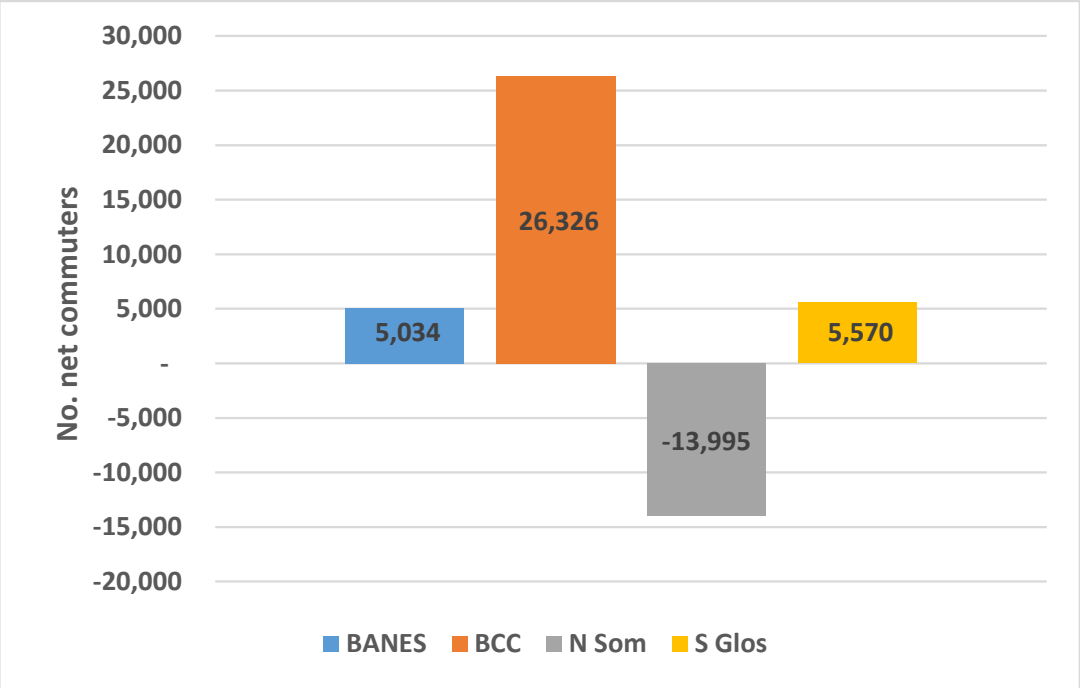
Figure 4-4 In-Commuters - where WoE workers commute from



Source: Bristol LEA (2015)

4.19. Perhaps unsurprisingly given its size and significance within the WoE area, Bristol attracts the greatest number of net-commuters at +26,326. This demonstrates the 'draw' of Bristol as the key economic driver for the West of England area. North Somerset is the only UA within the WoE that experiences net 'out-commuting' at -13,995. This probably reflects the number of largely 'dormitory/commuter' towns & villages south of Bristol and on the coast (Portishead, Nailsea, Clevedon, Yatton) and the fact there is relatively less employment space in the South Bristol fringe which is partly in North Somerset. It could also be an indicator of the rural nature and a lack of appropriate employment space to meet the needs of its largest settlement Weston-super-Mare. Figure 4-5 below shows net commuting for the four WoE UAs. However, this finding differs to the 2011 TTWA analysis which shows that Weston-super-Mare has its own TTWA. On balance the various sources of data demonstrate that market dynamics and commuting patterns in North Somerset are perhaps driven by both the Bristol and Weston-super-Mare/M5 corridor employment centres.

Figure 4-5 Net-commuting by West of England Unitary Authority



Source: Bristol LEA (2015)

4.20. In conclusion, the labour market analysis finds that the built up area of Bristol, as the largest settlement and economy, is the main employment centre in the West of England area and attracts commuters from the surrounding local authorities. To a lesser extent the eastern portion of BANES (principally City of Bath but excluding Keynsham and rural settlements Midsomer Norton and Peasedown St. John) could be considered a self-contained employment centre if travel to work patterns are analysed.. This is reflected in the fact Bath has its own distinct Housing Market Area (HMA). The 2011 TTWA analysis uncovers that Weston-super-Mare and its hinterland has a high self-containment rate although it is also has strong linkages with the larger Bristol market. However, on balance in economic terms it is more appropriate and rational to view the entire West of England area as a single economic market area (see paragraph 4.45 below for further justification).

Transport network

4.21. As stated above, the transport network is not generally used as the primary measure to identify the relevant Functional Economic Market Area. It is rather an indicator of labour market and service catchments. Analysis of the transport network can provide evidence of

whether a FEMA exists as transport links between different areas have generally evolved in response to market signals and economic drivers.

4.22. The main public transport links in the WoE area are:

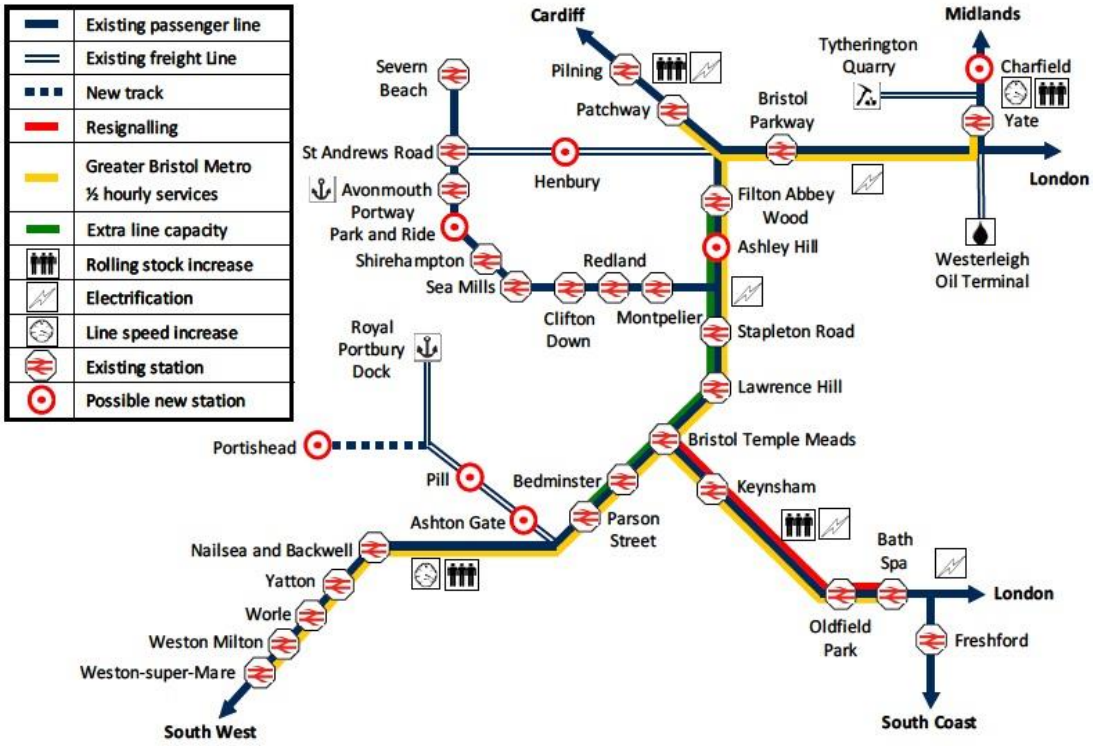
- Existing and proposed new railway links. The WoE area is connected by rail links. There are four main spurs of the local railway network linking Bristol City Centre to its surrounding hinterland as follows; Filton and Yate to the north, Avonmouth to the North West, Weston to the south west and Bath and Keynsham to the south east. There are also proposals to link Portishead to the west with a new rail line. Rail links are shown in Figure 4-6 below.

- There is an extensive bus network linking different areas of the WoE.

- There are a series of Park and Ride facilities in Bristol and Bath. There are 5 on the periphery of Bristol and 3 around Bath. This is shown in Figure 4.7 below.

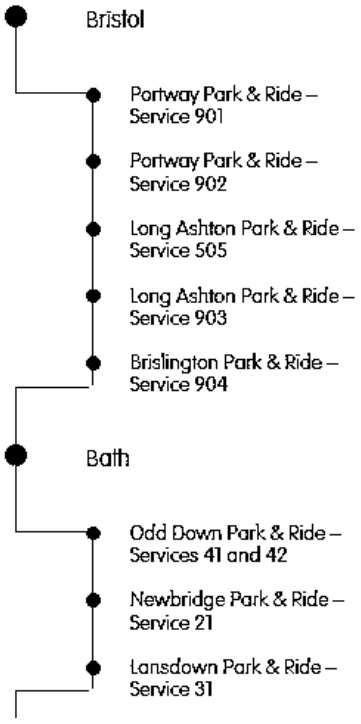
- A new rapid transit bus network (Metrobus) is being planned and constructed. It is expected to be running in 2016/17 and will link South Glos. To Bristol and North Somerset. The Metrobus network is shown in Figure 4-8 below.

Figure 4-6 Existing and Proposed Rail Links in the West of England Area



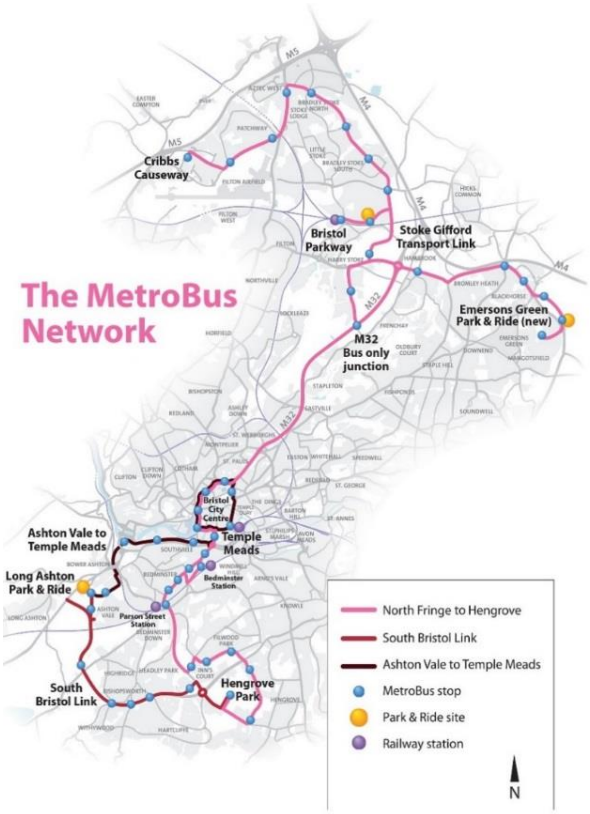
Source: West of England Joint Local Transport Plan 3 (2011)

Figure 4-7 Park and Ride Network in the West of England Area



Source: Travelwest (2015)

Figure 4-8 Proposed Rapid Transit Bus Network (Metrobus)



Source: West of England Joint Local Transport Plan 3 (2011)

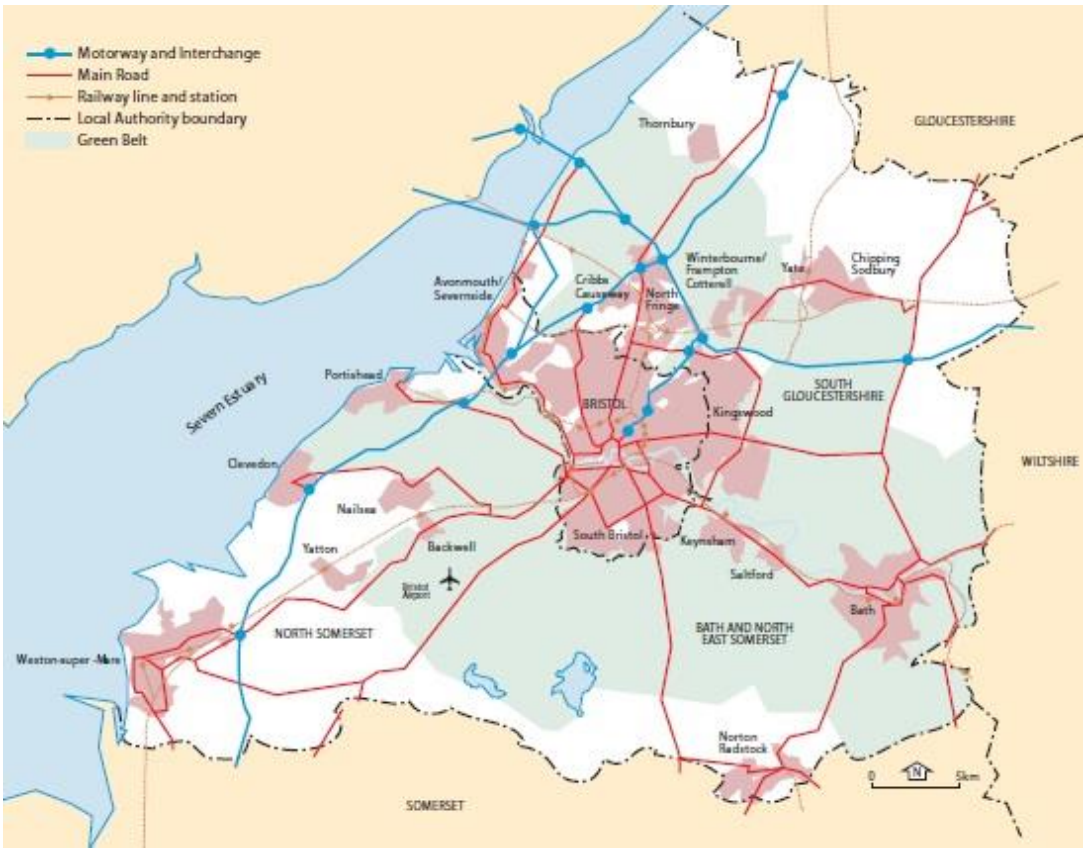
4.23. A coordinated approach to transport planning has been pursued at the West of England UAs level since their formation in 1996. This is largely response to economic drivers. A series of joint WoE planning strategies and evidence base studies have been published over the last ten years. A West of England Joint Transport Study is currently being produced. This, along with the EDNA and the SHMAs, will be key evidence base documents for the West of England Joint Spatial Plan.

4.24. The main road transport corridors in the WoE are:

- M5 running north to south and connecting WoE to the Midlands and North of England as well as South Gloucestershire and northern part of Bristol urban area to the south including Weston-super-Mare and North Somerset.
- M4 running east to west and connecting the WoE to London and the South East and South Wales
- M32 connecting the north of Bristol urban area/South Gloucestershire to central Bristol
- M49 connecting Severn Bridge (South Wales) to Avonmouth/Severnside.
- A4 connecting central Bristol to Bath passing through Keynsham to the east and to the west connecting central Bristol to Avonmouth (The Portway)
- A38 connecting South Bristol to Bristol Airport
- A370 connecting Weston-super-Mare to Bristol
- A4174 Avon Ring Road, which is effectively a ring road linking the eastern, northern and southern outskirts of Bristol.
- A46 running north south and linking Bath to Gloucestershire and Somerset
- A37 running from south from Somerset north into Central Bristol.

4.25. The major existing road and rail links in the WoE area are shown in Figure 4-9 below.

Figure 4-9 West of England Transport Network



Source: West of England Joint Local Transport Plan 3 (2011)

4.26. The analysis of transport networks above demonstrates that the WoE area is integrated and connected through a range of strategic road and public transport infrastructure. This transport network has evolved over time to respond to market demand to link areas of employment, housing, retail and other services together. In conclusion therefore, the analysis of transport linkages suggests that the WoE can be considered as a single economic market area.

Service market for consumers

4.27. The economic geography of an area can also be assessed in terms of patterns of retail and leisure spending of an area's residents. Understanding whether people travel to the area from outside of the area to shop and spend their leisure time provides an indicator of the market area that a wide range of personal and small business services are provided.

4.28. The retail catchment areas for West of England is not covered by a single WoE wide study. Each UA have produced retail capacity studies at different times. However, the UAs have committed to publish a joint Retail Study post submission of the JSP.

4.29. To better understand the trade draw of different settlements, how they interact and to establish a hierarchy of retail centres it is useful to compare the rankings of each settlement. This can be done against competitor centres.

4.30. Javelin Group produce a UK retail industry respected ranking of the UKs top 3,000 retail centres. This is termed 'Venuescore' and is based on a variety of criteria such as quantity and quality of shops, location, regional significance and consumer attractiveness. The 'Venuescore' rankings of major competing centres and sub-regional shopping centres are shown in Table 4-1 below:

Table 4-1 Venuescore Rankings of Shopping Centres

Retail Centre	Venuescore UK ranking 2014
Principal Shopping Centres	
Cardiff	8
Bristol	15
Bath	19
Exeter	24
Cheltenham	32
Swindon	72
Gloucester	98
Secondary Shopping Centres	
Cribbs Causeway	130
Weston-super-Mare	191
Yate	373*
Clevedon	740*
Keynsham	1061*
Midsomer Norton	1207

Source: Javelin Group (2014). Note: Rankings exclude London. *2010 Score

4.31. Table 4-1 above shows that Bristol and Bath are major UK shopping centres. The retail floorspace figures are similar for Bristol and Bath at approximately 135,000 m^2 and 128,000 m^2 respectively[28]. Table 4-1 also clearly shows that surrounding settlements such as Yate, Weston, Keynsham and Clevedon are secondary to the main centres of Bristol and Bath. In terms of FEMA analysis this demonstrates the economic significance of Bristol and Bath as regional centres.

4.32. The retail rankings potentially provide some evidence that Bath could be seen as a stand-alone market area. However, as demonstrated throughout this section, there are close links between Bristol and Bath and their close proximity to one another suggests they could be seen as 'twin' retail centres within a single interconnected urban area or economic market area. Given the close distance between Bristol and Bath, the supply chain firms supplying the retail centres of Bath and Bristol are likely to be located within a wider WoE FEMA, not just in Bath or Bristol. For example, firms operating in Keynsham will provide goods and services to both Bath and Bristol centres. If Bath had a standalone FEMA including land in all of BANES administrative boundary, Keynsham's links to the Bristol economic market would not be formally recognised as it would be considered to be in a separate FEMA (i.e. the Bath FEMA).

Supply Chain Linkages & Commercial Property Market

4.33. Another way of helping to define the FEMA is through assessing whether particular supply chain linkages or clusters of similar business activities occur in close proximity to each other. As discussed above, the NPPF at paragraph 21 states that local authorities should '*plan positively for the location, promotion and expansion of clusters or networks of knowledge driven, creative or high* technology industries'.

4.34. Section 2 outlined the policy commitment at the West of England Partnership and LEP to promoting key economic growth sectors. The promotion of these sectors at a WoE level is partly to equip the area with the best chance of competing with nearby regions such as Oxfordshire, Reading and the Thames Valley, the Midlands, Northern Powerhouse and

[28] BANES Retail Study 2014, GVA, Nov 2014 Table 3.1

international areas. The key sectors that currently exist in the WoE and that will be supported through proactive initiatives are identified in the 2012 LEP Strategic Economic Plan (SEP). These key growth sectors present in the WoE are shown in Table 4-2 below:

Table 4-2 West of England LEP Strategic Economic Plan (SEP) Priority Sectors

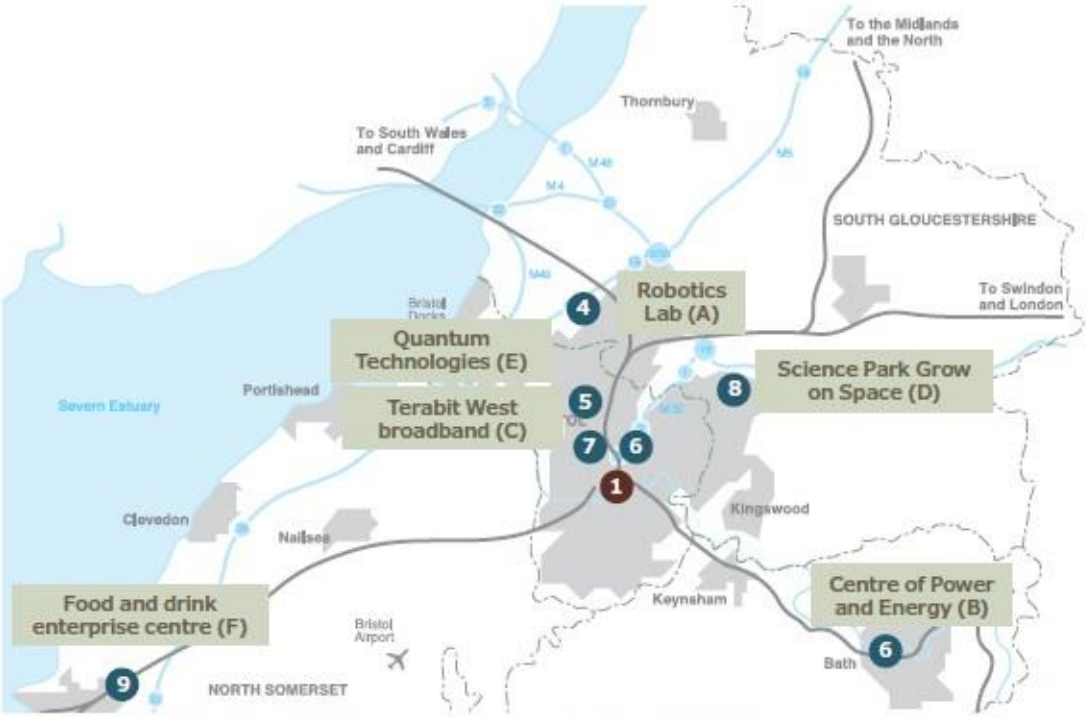
Priority Sectors	Employment Numbers	Location Quotients excluding London[29]
Advanced Engineering & Aerospace	23,400	1.3
Professional services	52,700	1.5
Creative and Digital	15,900	1.4
High tech	16,400	1.1
Low Carbon	5,900	1.0
Total	**114,300**	**1.3**

Source: WOE SEP (2012)

4.35. Figures 4-10 to 4-12 below show the clustering of sectors in the WoE. These show that there are clear supply chain and economic linkages between relatively close areas within the WoE.

[29] Note: Location quotients over 1 demonstrate that the sector has proportionately more workers employed in that sector than the UK average.

Figure 4-10 West of England High Tech Sector Clustering



Longer term project ideas in the pipeline:
Cyber Security Incubator, Institute for Interaction and Intelligent Technologies (I3T), Diagnostics for Growth (DIAGRO) – Clinical Research & Development, Robotics and Autonomous Systems Collaboration Centre (RAS CC), High Tech Innovation Network (High Tech iNet), Robotics and Biotechnology Collaboration Centre.

Key companies include:
Oxford Instruments, EE/Orange, IPL, Broadcom, Imagination Technologies, NVIDIA/Icera, Hewlett-Packard Laboratories, Toshiba Research Europe, Infineon Technologies UK, IBM, Sony, Amazon, SSL, Smart Systems.

OPPORTUNITIES AND SYNERGIES WITH OTHER SECTORS

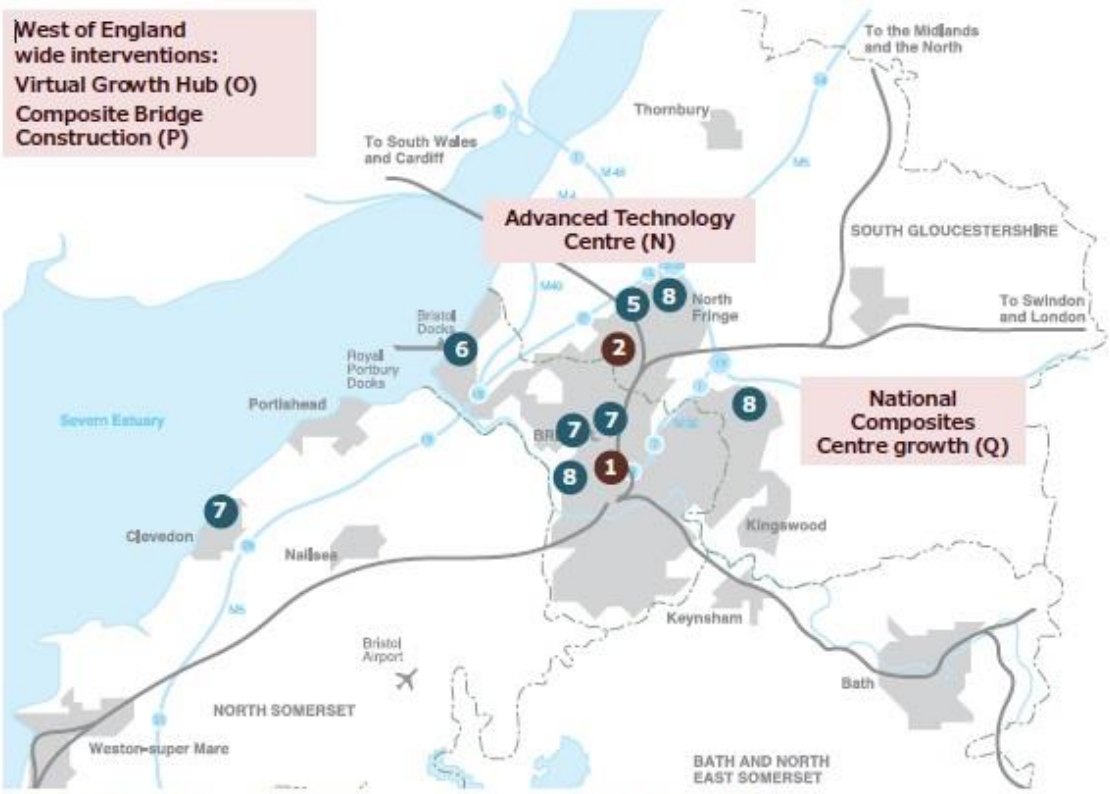
1. Enterprise Zone – sector is fundamental to developing creative, technology, communications, financial and professional services and software companies
2. Exploit new technologies such as Quantum Technology and Robotic Autonomous Systems, Biomedical and Biotechnology building on existing strengths and funding opportunities (e.g. £270m for Quantum Technology announced in the 2013 Autumn statement)

ASSETS

3. High tech cluster – one of the strongest in the world with a large silicon design cluster built on, and has been mapped online. The skills base to create systems and applications to use silicon chips now in place
4. Robotics Laboratory and Biotechnology – unique collaboration between the Universities and Business partners to have potential world leading role
5. UK Electronics Skills Foundation (UKESF) – addresses skills shortages in the industry. University of Bristol is a founding member
6. SETsquared partnership – award winning business acceleration service
7. Bristol and Bath Science Park (BBSP) and Engine Shed – allowing strong interaction with entrepreneurs, advisors, investors, suppliers, business leaders and local universities
8. Science City – Bristol is one of only 6 in the UK
9. Future Technology Centre – FE to meet Hinkley Power Station demand

Source: WOE SEP (2012)

Figure 4-11 West of England Advanced Manufacturing Sector Clustering



Longer term project ideas in the pipeline:
Invest Bristol and Bath – trade promotion.

Key companies include:
Airbus, GKN Aerospace, Rolls Royce, BAE Systems, Honeywell, WEAF, GE Oil, Safran and Claverham Ltd.

OPPORTUNITIES AND SYNERGIES WITH OTHER SECTORS

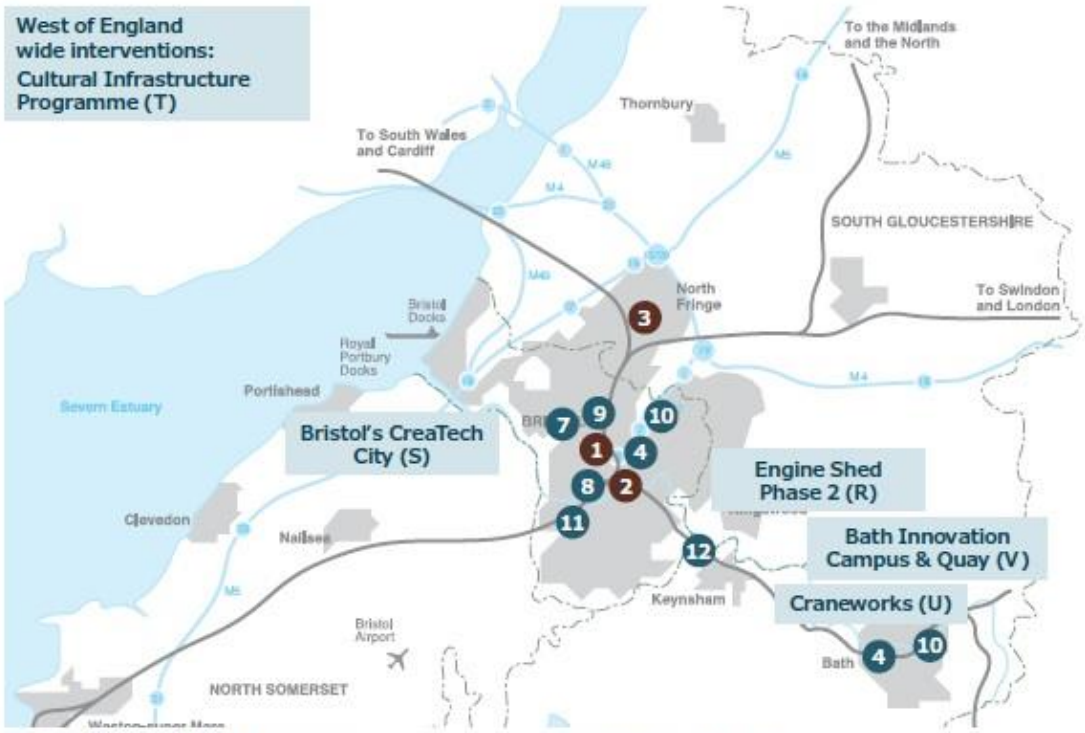
1. Enterprise Zone – focus for a test-bed for the global aerospace, defence, security and space sector's innovative solutions to smart/future city challenges
2. Supply chains are to 14 of the 15 world's leading aerospace companies, focussed here. Spin outs: avionics, robotics autonomous systems, composites
3. Commercial sector opportunities – with the international investment programmes that can be applied to, it could double in size in the next ten years
4. Sub sectors also do well – automotive industry, white good manufacturing, packaging, signmaking, sub-sea exploration, and wind turbine manufacturing

ASSETS

5. Largest UK aerospace and defence cluster, mostly based in the North Fringe
6. Focus of Filton and Avonmouth / Severnside Enterprise Areas to encourage clustering and allow room for growth
7. WEAF and EEF – membership associations which lead on initiatives, provide support services, and deliver training and networking events. SEMTA, the sector skills council, is also active in the area
8. Growing number of significant industry centres: the Advanced Composites Centre; the National Composites Centre; Bristol and Bath Science Park, and the new University Technical College, Bristol Engineering and Technology Academy

Source: WOE SEP (2012)

Figure 4-12 West of England Creative Sector Clustering



Longer term project ideas in the pipeline:
Shoot West: Film-making proposition, Curzon Creative Media incubator, Bath City Riverside Enterprise Area Business Support, Growing Our Workforce: Skills for the WE Creative Sector.

Key companies include:
Aardman Animations, BBC, Future Publishing, Mubaloo, Smart Traffic, Yogscast, Silverback Films, Mason Zimler, Sift, Watershed, ITV, Endemol, RDF, e3, McCann Erickson, Icon Films, Films@59.

OPPORTUNITIES AND SYNERGIES WITH OTHER SECTORS

1. Enterprise Zone as a creative and digital centre is underway, already comprising Temple Studios, City of Bristol College, Paintworks, and Engine Shed
2. Paintworks phase 3 will include business units for creative SMEs
3. Cross sector collaborations – fusion of Creative and Technology (CreaTech) drives growth as demonstrated in Brighton

ASSETS

4. Collaborative culture and common purpose across cultural/creative/technology landscape, with employment growing 11% per year
5. World-leading, BAFTA and Oscar winning expertise in factual TV and features, animation and print and digital publishing
6. Leading digital/mobile/advertising creative service sector
7. Focus on a London-Manchester-Bristol 'golden triangle' by BBC, Creative England and Creative Skillset (including unique skills MoU with LEP, unique BBC-Bristol partnership)
8. Excellent cultural centres – Watershed, Bristol Old Vic, Bath Theatre Royal, mShed, Holbourne, Tobacco Factory, St George's, etc.
9. Encounters Short Film Festival – one of four key film festivals in the UK with the BFI
10. Three industry membership organisations – Bristol Media, Creative Bath and the West of England Design forum
11. Bottleyard film studios, the largest facility in the South West
12. Two of the UK's leading cultural/creative cities, 10 mins apart by train, linking Enterprise Zone and Enterprise Area

Source: WOE SEP (2012)

4.36. Section 3 above discussed commercial agent's view of the property market area relevant to the WoE. In general, agents treat Bristol as the key commercial property market area and compare it to nearby competing areas such as Swindon, Cardiff, Cheltenham and Gloucester. This is justification for treating the WoE area as a single FEMA.

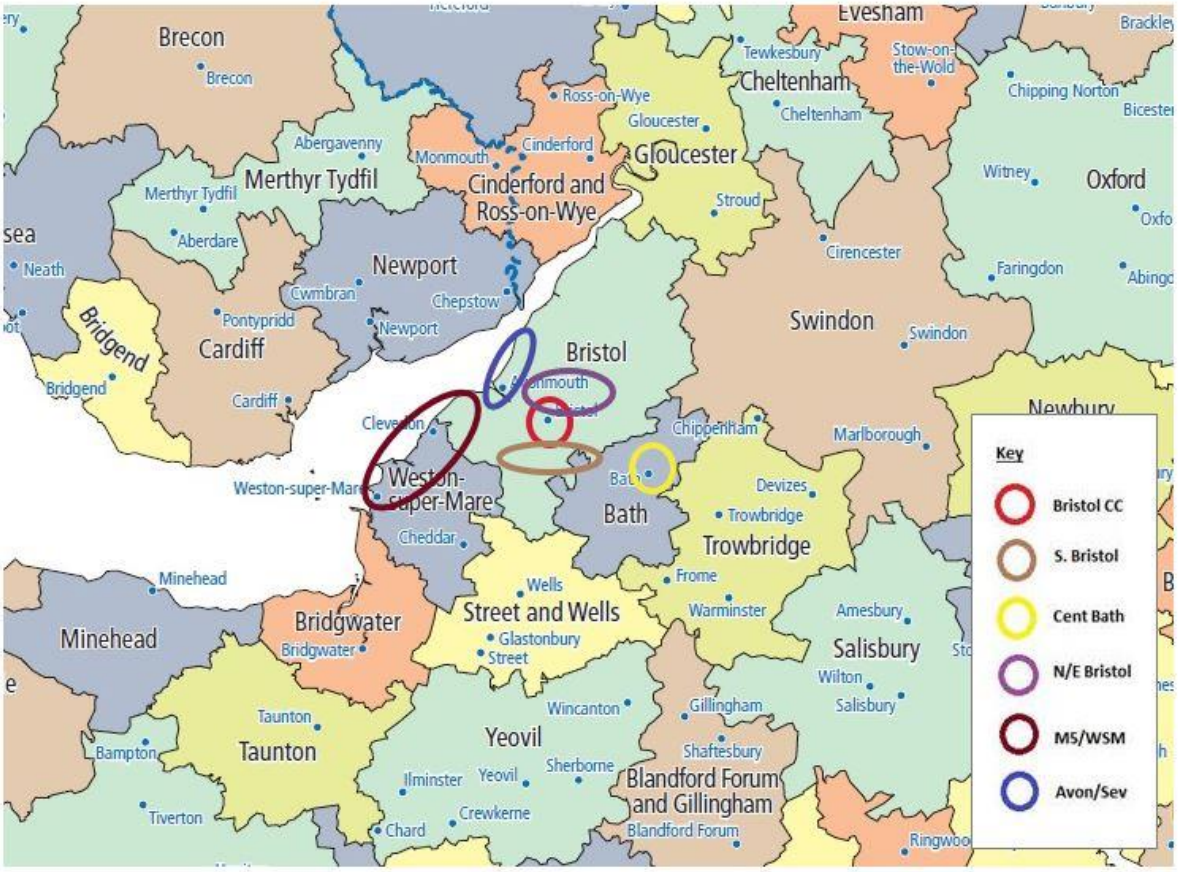
FEMA Sub-areas

4.37. As discussed at section 3 above the sub-areas within the WoE FEMA were discussed and agreed by consultees at the Stakeholder workshop. FEMA sub-areas are not mentioned in the DCLG FEMA guidance note (2010) or the PPG. They are indicative areas that contain concentrations of similar business space typologies. They are not intended to be treated as spatial areas with definitive boundaries. However, they are a useful way of presenting and assessing differences within the wider WoE FEMA that in themselves would not justify the creation of a standalone FEMA for reasons explained throughout this section. The agreed WoE FEMA sub-areas are as follows:

- **Bristol City Centre**; which includes the central office areas and industrial, trading and logistics estates providing supply chain links to the city centre and surrounding housing and retail areas.
- **North and East Fringe of Bristol**; which includes Filton which has a high percentage of large industrial occupiers, Emersons Green which includes the Bristol Science Park and potential for further international science based occupiers and Aztec West which is home to numerous major industrial and logistic firms and large firms occupying grade A office space.
- **Avonmouth/Severnside**; a large traditional industrial area focussed on the Port of Bristol, Royal Portbury Dock and including many large potential development sites for mainly industrial, logistics and utilities occupiers
- **Central Bath**; which provides generally smaller format niche business accommodation for occupiers who seek to be located in Bath due to its unique environmental characteristics
- **M5 Corridor/Weston-super-Mare**; Weston-super-Mare is a sufficiently large settlement and far enough away from Bristol to have a degree of economic self-sufficiency and thus its own sub-market. Due to its proximity it also forms part of a M5 corridor sub-area that stretches into Avonmouth around Portbury and includes Clevedon, Nailsea and Portishead. It typically provides accommodation for industrial and logistics firms seeking better value accommodation next to M5 and close to Bristol and other large population centres.
- **South Bristol**; this area does not currently contain significant employment areas but it has the potential to in the future if infrastructure such as the South Bristol link road is built and major housing and employment growth is realised.

4.38. The indicative locations of WoE FEMA sub-areas are shown in Figure 4-13 below:

Figure 4-13 West of England Indicative FEMA Sub-areas



Source: TTWA (2015) & Atkins.

4.39. As agreed by the consulted stakeholders, in addition to the six WoE sub-areas described above there is also a generic 'local employment' space typology that appears across a range of geographic areas within the wider WoE. This cross geography cutting typology includes accommodation for firms that serve local markets. For example, small business parks and industrial estates that provide relatively good value space for logistics firms, trade merchants, local offices and industrial supply chain firms. This explains why there are gaps across the WoE area that are not covered by the six specific sub-areas shown in Figure 4-13 above.

4.40. While sub-areas covering rural or suburban areas could potentially be defined that capture the residual areas not covered by the six sub-areas, this is not necessary or appropriate as there is no clear spatial link between these different areas. This 'local employment space' typology occurs consistently across the FEMA from Thornbury and Yate in the north of the study area to Weston-super-Mare and Somer Valley and Chew Valley in the south.

Bringing the analysis together to define the FEMA

4.41. There is no universally agreed approach to defining FEMAs. The most appropriate method will depend on what features of the local economy are being considered. As this study is concerned with the analysis of B class employment needs, the functional labour market provides an appropriate starting point for defining the FEMA.

4.42. Analysis of the labour market demonstrates that if treated as a whole the WoE has a high self-containment rate at around 89%. However, if a finer grained analysis is performed, as

is appropriate when looking at housing market areas (HMA), Bristol and Bath are separate labour markets. This only applies to the eastern portion of BANES focussed on the City of Bath. Other parts of BANES such as Keynsham, the A37 corridor and the Chew Valley are part of the much larger Bristol labour market even though they are included in the Bath HMA, which covers the whole of BANES. Also, the 2015 TTWA analysis suggests that Weston-super-Mare and surrounding areas stretching up to Clevedon in the north and parts of Mendip in the south is its own TTWA. However, additional 2011 Census data analysis as shown in the West of England Local Economic Assessment suggests that North Somerset is closely tied to the wider Bristol market.

4.43. Also, as can be seen from Figure 4-13 above, there are areas of Wiltshire and Mendip that are part of the Bath travel to work area but these areas are also excluded from the Bath HMA for the reason that they would not form the 'best fit' to existing administrative boundary. The City of Bath has a 67% self-containment rate. This is probably due to its unique characteristics of high quality and high value housing and smaller mainly professional service-sector companies.

4.44. The WoE area is well linked by a range of transport infrastructure and will continue to improve this connectivity through a range of major transport interventions such as Metrobus, South Bristol Link and Portishead rail line. The transport connectivity of the Bristol city region is indicative of an integrated local economy and the need to enable the supply chain linkages that exist within it. This is a justification for including Bath and Bristol in a single FEMA.

4.45. Although Bath and Bristol are on a similar level on the retail hierarchy and form two distinct retail catchments, they effectively form part of a wider WoE commercial property market. There are clusters of integrated high growth sectors across the WOE area and external potential business occupiers will generally look at the wider West of England area when making enquiries for commercial property. From a national perspective the Bristol City region, including Bath, therefore represents a relatively homogenous economic market area. This is a further justification for including Bath and Bristol in a single FEMA.

4.46. In recognition of the strategic challenges facing the West of England region and to equip the area with the best possible chance of responding to competition from other UK and international City regions, the four unitary authorities in and around the Bristol City region have been working together since their formation in 1996 to develop joined up planning policies. These joined up policies include an integrated transport strategy, strategic economic plan and forthcoming joint spatial plan. This approach corresponds with the NPPF which seeks cross boundary strategic working to meet ambitious and positive spatial planning objectives. The WoE wide integrated policy approach is again indicative of the relatively unified nature of WoE as an economic area. This is a further justification for treating the WoE as a single WoE FEMA.

Justification and implications of defining a West of England FEMA and not three separate FEMAs as per the SHMA and TTWA

4.47. The analysis in this section has demonstrated that there are three potential options for a FEMA relevant to the WoE. These are a single WoE FEMA, two separate FEMAs for the Wider Bristol area and for Bath which match the two HMAs and three FEMAs for the three Travel to Work Areas (Bristol, Weston and Bath). For the reasons explained above and below, this study recommends the first option; a single WoE FEMA. On balance a single WoE FEMA is the most appropriate and robust option and would enable the most appropriate NPPF compliant spatial policies to be developed in the JSP for the following reasons.

4.48. Although there are clear spatial linkages between HMAs (which rely heavily on TTWAs for their definition) and FEMAs, HMAs embody fundamentally different dynamics to FEMAs. The HMA is concerned with the dynamics of housing need and supply and the FEMA with

business need and supply. For example, whereas in general housing is distributed evenly over a built up area which makes analysis of Travel to Work Patterns very relevant, in comparison employment sites are unevenly clustered in a smaller number of employment areas. Employment uses primarily relate to other employment areas through their supply chain linkages.

4.49. Businesses are generally prepared to travel greater distances to transport their products and services to one another than commuters are to their place of work. In this respect consideration of supply chain linkages arguably outweighs the consideration of employee commuting patterns, even though the labour market is an important factor for firms and economic markets. However, unfortunately compared to Travel to Work data as contained in the Census there is relatively less information available on supply chain linkages. This is perhaps one of the reasons why Travel to Work Area data is often relied on more heavily in defining FEMAs than supply chain linkage information.

4.50. Superficially it may appear appropriate to tie the HMA (or TTWA) to the FEMA in a FEMA definition exercise and in many cases this occurs. However, every area is different and the characteristics of the WoE area as explored in this section provide clear evidence that a single economic area for the WoE is more appropriate than two or three FEMAs including one very large FEMA (Bristol) and one very small FEMA (Bath) and a separate FEMA for North Somerset based on it having a separate TTWA.

4.51. To tie the FEMA to the HMA (and potentially the individual TTWAs) for ‘convenience’ and/or to avoid potential scrutiny is not in itself an appropriate reason for doing so. As defined by the NPPF and PPG, the proper process for defining a FEMA is to objectively assess all the factors and then conclude on the rational economic market area. While it may be appropriate to consider the HMA, the HMA is not specifically an economic piece of evidence. Therefore the FEMA should not be artificially tied to the HMA for planning policy ‘neatness’.

4.52. The West of England area as a whole has a commuting self-containment rate of 89%.This conforms to its status as a ‘city region’ and according to the FEMA guidance this would also equate to it being viewed as a natural FEMA. The eastern portion of BANES is only around 10 miles from the centre of Bristol and has a much smaller population of around 100,000 compared to the West of England area’s total of 1.1million. Moreover, analysis of VOA floorspace data shows that the City of Bath actually contains a minority of business floorspace within the BANES UA overall. The City of Bath has approximately 512,758 m^2 of the UA’s total business floorspace (48.5%) compared to 544,101 m^2 (51.5%) in the western portion of BANES i.e. Keynsham, Radstock, Paulton, Midsomer Norton etc. Therefore the majority of business floorspace in BANES is within the Bristol Travel to Work Area. Bath floorspace as a proportion of total WoE floorspace (approximately 15 million m^2) is also very small at only 3.4%.

4.53. On balance therefore, the implication of creating a standalone Bath FEMA, corresponding to the Bath HMA and including the BANES administrative boundary, would be the creation of a very small FEMA thirty times smaller in employment floorspace terms than the neighbouring Bristol ‘city-region’ FEMA, which is also only ten miles away. This does not correspond to national policy or FEMA guidance. The 2010 DCLG FEMA guidance note states that where they exist FEMAs should equate to ‘city regions’. In this regard a robust justification and evidence for creating a much smaller standalone FEMA for Bath and North Somerset/Weston and not tying the WoE FEMA to the Bristol City Region would be required. On balance this evidence and justification for this does not exist. The apparent ‘convenience’ of having the same HMAs as FEMAs should not be seen as a justified reason for splitting the WoE FEMA.

4.54. In addition, a majority of the employment floorspace within this hypothetical Bath FEMA would be in a different travel to work area (the Wider Bristol TTWA and HMA)[30]. This appears to be justification for including BANES in a wider WoE FEMA, or at least

[30] Assuming that the small areas of the Bath TTWA within Wiltshire and Mendip are not included.

excluding the western portion of BANES. There are also further policy justifications for defining a wider WoE FEMA as opposed to two FEMAs. As discussed above the NPPF seeks to encourage positive planning. The WoE Strategic Economic Plan sets out an ambitious positive spatial plan for the whole WoE area. To ignore this and create three separate FEMAs could logically lead to separate assessments of economic supply and needs for each separate FEMA. This could risk harming the overall economic prospects of the WoE area and lead to the potential failure to deliver the aspirations of the WoE SEP. This approach would risk being viewed as non-compliant with the national policy aspirations contained in the NPPF.

4.55. Similarly, a standalone FEMA for North Somerset based on the Weston-super-Mare TTWA would not on balance be appropriate for similar reasons as creating a separate Bath FEMA. Creating a North Somerset FEMA would further fragment the WoE economy and could threaten the economic potential of both areas through denying the clear economic linkages between the two settlements.

Conclusion

4.56. In summary, although it is generally more typical to tie the FEMA to the HMA in this case it would lead to two FEMAs for Bristol and Bath and potentially a further FEMA for North Somerset based on the separate Weston TTWA. On balance, given the existing economic and supply chain linkages and market integration in the WoE as well as the strategic policy imperative to promote the West of England economy collectively through the LEP, it is more appropriate to consider the economic development needs of a single West of England FEMA. This is an evidence based and NPPF compliant conclusion. It also corresponds to the views of the consultees and market intelligence gathered as part of the consultation process.

4.57. A standalone Bath FEMA including all of BANES would not be appropriate because it would be a FEMA where the majority of business floorspace is in a different FEMA - the Bristol TTWA. It would also represent an economic market 30 times smaller than the neighbouring Bristol FEMA in business floorspace terms. Separating out a much smaller element of the wider WoE FEMA into separate FEMAs and developing specific spatial policies to match these new FEMA's supply and demand characteristics, would risk fragmenting the rational WoE economic market. This could eventually lead to a reduction of the economic growth potential of both Bath, Bristol, North Somerset and the wider WoE.

5. Supply Assessment

Introduction

5.1. This chapter provides an overview of the supply of existing B-class employment land and provides the headline results of the review of employment sites and premises within West of England study area. The results of this analysis will be contrasted with the demand assessment (Chapter 6) and will then provide the basis upon which to consider how future employment land requirements (detailed in chapter 8) can be met.

Employment Stock

5.2. Valuation Office Agency (VOA) data provides the most recently available details of business units in West of England that are subject to business rates. The VOA assesses the 1.8 million non-domestic properties in England and Wales that are liable for business rates and collects information on these properties, including the type of property, the location, the floorspace and rateable value.

5.3. The VOA data (see Table 5-1 and Figure 5-1) identifies that the West of England area has around 14,976,236 sq. m of B-class use employment floorspace. This includes occupied floorspace and available marketed floorspace as outlined at Table 3-1.

5.4. The majority of this floorspace is warehousing (B8) with 53.6% of total stock, followed by industrial (B1c/B2) with a 24.8% share and then office (B1a/b) with 21.5%. Bristol City Council has the largest share of the WoE employment land supply at 40.7%, followed by South Gloucestershire at around 30%, then North Somerset at 22%. BANES has 7.4%.

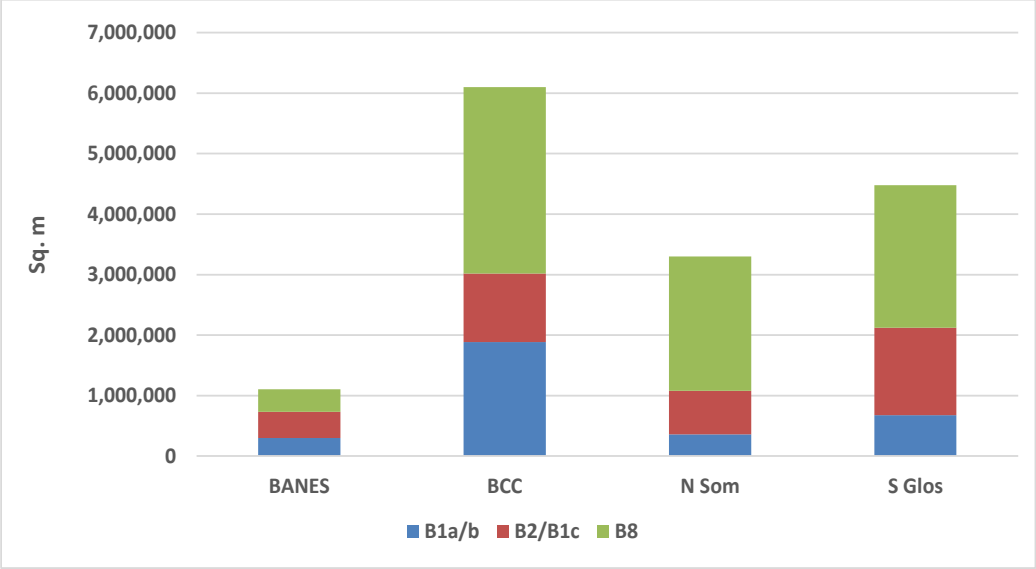
Table 5-1: Total Stock of B-class Employment Land

Land use	BANES	BCC	N. Som.	S. Glos.	Total	% of Total
B1a/b	301,517	1,883,515	357,211	678,418	3,220,660	21.5%
B2/B1c	430,841	1,133,054	721,609	1,440,828	3,726,332	24.8%
B8	371,038	3,080,943	2,218,666[31]	2,358,597	8,029,244	53.6%
Total	**1,103,396**	**6,097,511**	**3,297,486**	**4,477,843**	**14,976,236**	100%
% of Total	7.4%	40.7%	22.0%	29.9%	100%	

Source: Atkins based on VOA and EGI data (2015)

[31] Note the figure for B8 in North Somerset includes a large amount of floorspace at Portbury Dock.

Figure 5.1 Total Stock of B-class Employment Land in WoE by Area



Source: Atkins based on VOA and EGI data (2015)

5.5. Converting the approximately 15m m^2 of the employment floorspace to employment land using standard plot ratios interpreted from the 2004 Employment Land Review (ELR) Guidance Note and consultation with UAs, results in approximately 3,233 hectares across the West of England area[32]. This is shown in Table 5-2 below.

Table 5-2 Employment Land

Use Class	Floorspace (m^2)	Plot Ratio	Land (ha)
B1a/b	3,220,660	50% of site area (BCC and BANES) 40% (North Somerset & South Glos)	696
B1c/B2	3,726,332	40% of site area	932
B8	8,029,244	50% of site area	1,606
Total	**14,976,236**		**3,233**

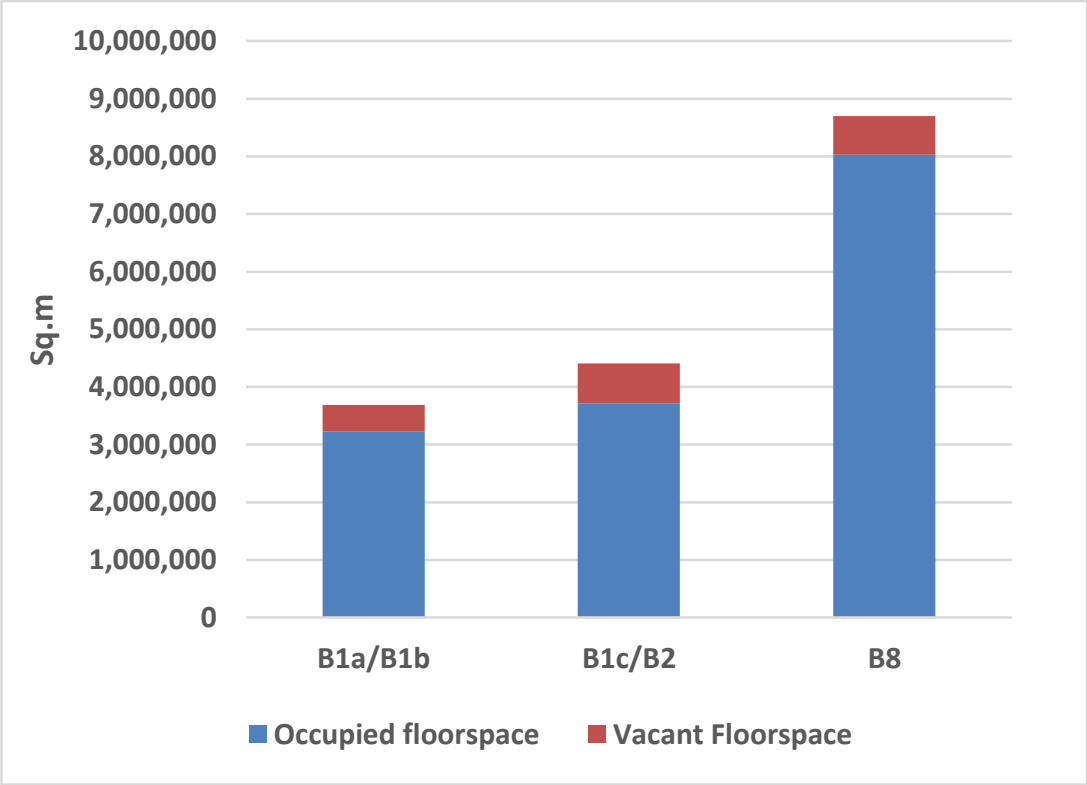
Source: Atkins from VOA (2015), ODPM ELR Guidance (2004) and consultation (2015)

Vacant Stock

5.6. Figure 5-2 below shows occupied and marketed floorspace by land use type. This is based on the analysis explored in Chapter 3 above (see Table 3-1) which is based on Estates Gazette data (EGi). This shows that 12% of total B use stock is currently being actively marketed across the WoE area. Industrial (B2/B1c) has the highest rate at 18% and warehousing is only 8%.

[32] ODPM Employment Land Review Guidance Note (2004) Box D.7 p101

Figure 5.2 Total Stock (Occupied and Vacant) of B-class Employment Land in WoE



Source: Atkins based on VOA and EGI data (2015)

Type of Stock

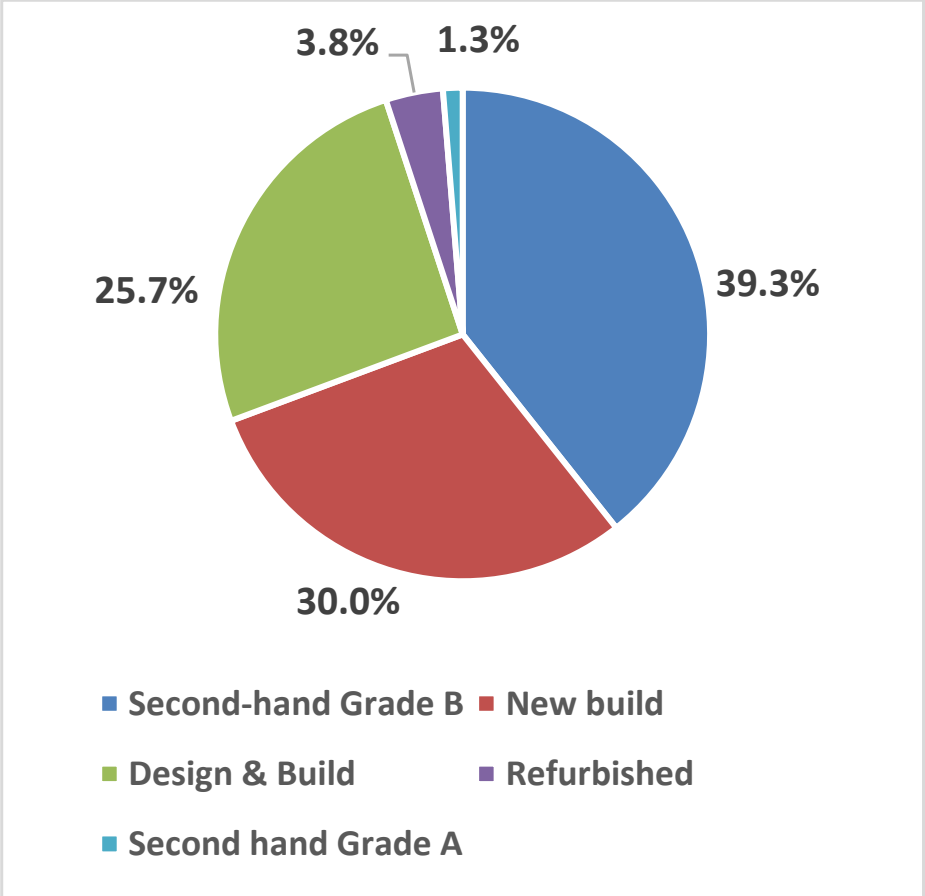
5.7. Table 5-3 and Figure 5-3 below show the grade of commercial space being actively marketed in the West of England according to EGi data. This shows that second hand grade B is the most common type of commercial property on the market followed by new build and design and build. There is a relatively small proportion of refurbished and second hand grade A. The relatively high proportion of Grade B space may be an indicator of the need for greater quantum of new good quality commercial property. Note Table 3.1 above shows actively marketed stock broken down by local authority area.

Table 5-3 Grade of Premises Actively Marketed in West of England

Grade of Marketed Property	m^2	% of total
Second-hand Grade B	712,634	39.3%
New build	542,806	30.0%
Design & Build	464,915	25.7%
Refurbished	67,949	3.8%
Second hand Grade A	23,211	1.3%
Total	**1,811,515**	100%

Source: Atkins based on VOA data, 2015

Figure 5-3 Grade of Premises Actively Marketed in West of England by %



Source: Atkins based on EGi data, 2015

5.8. Table 5-4 and Figure 5-4 below provide an indication of the average size of different B-class premises in West of England. Average warehousing premises (B8) are the largest at 1,653 m^2 followed by industrial (B1c/B2) (726 m^2) and office (B1a/b) (375 m^2).

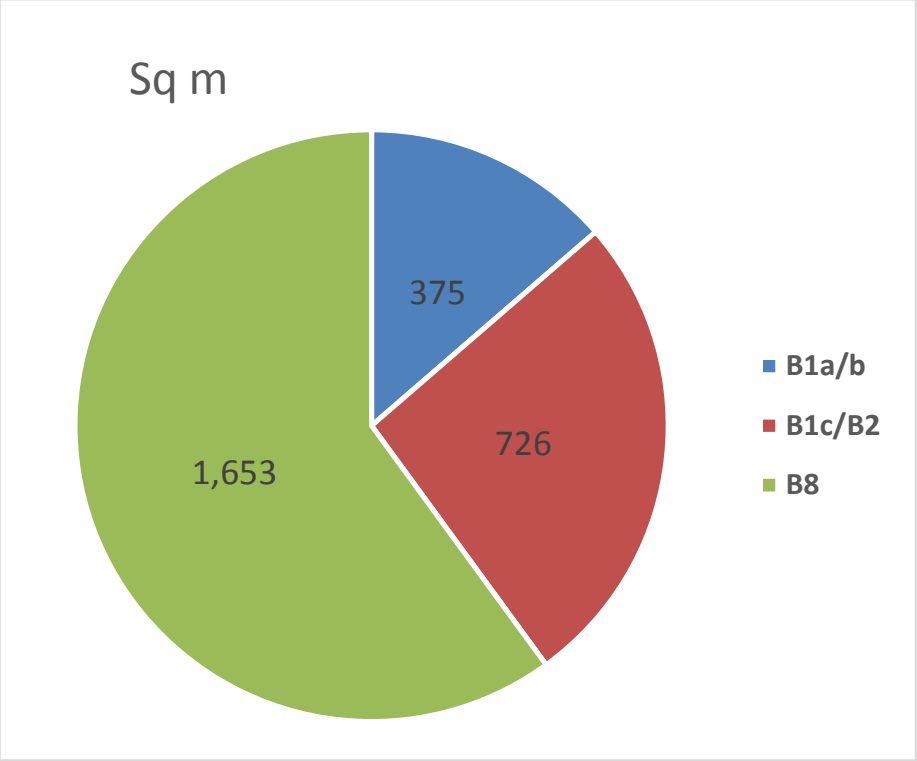
5.9. The overall average for all premises is 822 m^2. South Gloucestershire and North Somerset have the largest average size of premises. This is largely driven, in North Somerset's case by the large vehicle importation premises at Portbury Dock and in South Gloucestershire by the Rolls Royce factories at Filton and large distribution sheds in Severnside. BANES has the smallest employment premises which reflects the relatively smaller scale and spatially restricted nature of the employment land market there.

Table 5-4 Average Size of Existing Employment Premises (m^2)

	B1a/b (m^2)	B1c/B2 (m^2)	B8 (m^2)	Average (m^2)
BANES	248	532	585	421
Bristol	442	614	1,478	761
N. Somerset	216	749	2,724	1,047
S. Glos.	454	1,047	1,793	1,058
Average (sq. m.)	**375**	**726**	**1,653**	**822**

Source: Atkins based on VOA data, 2015

Figure 5-4 Average Size of Existing Employment Premises in West of England (sq. m)



Source: Atkins based on VOA data, 2015

Employment Sites

5.10. There is a significant amount of employment space in the West of England. According to analysis of VOA data there is around 15million square metres of floorspace. If this is converted to land using standard plot ratios it would equate to 3,100 hectares. This includes a significant number of employment sites across the WoE area.

5.11. Although it is not within the scope of a strategic study such as this EDNA to assess all employment sites, it is important to inform the conclusions in Chapter 8 that a consideration of the key employment sites is made. To assess whether the supply of existing and potential future employment sites can meet future economic development needs of the area it is necessary to quantify the amount of available employment land that could fulfil this purpose. Existing key sites and potentially developable employment land is also assessed for its suitability to meet future needs.

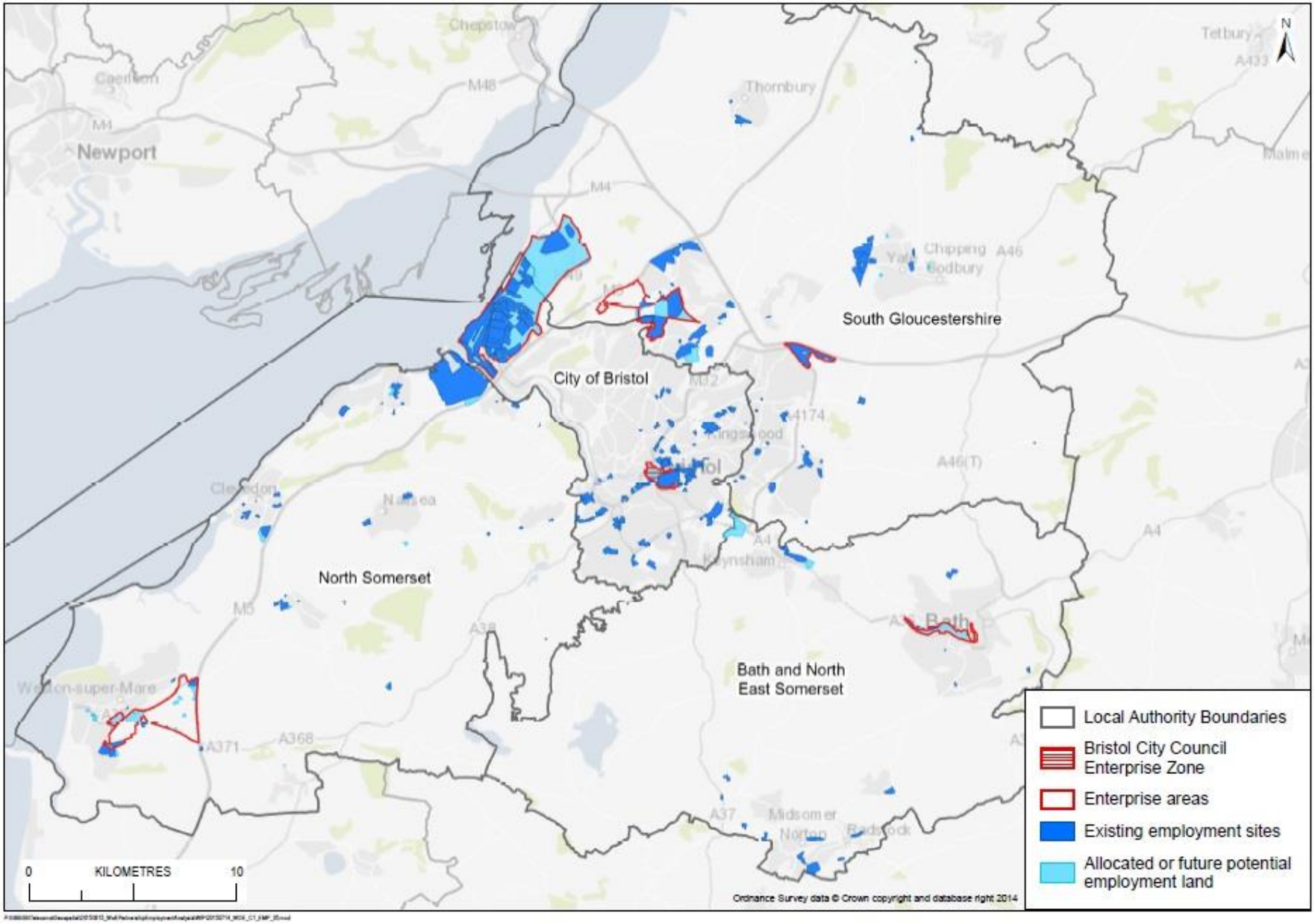
5.12. GIS analysis was performed of data on existing safeguarded employment sites and sites that are not built on but are currently allocated for future employment use provided by each of the four WoE UAs. This shows that there are approximately 251 safeguarded and allocated employment sites covering approximately 4,123 ha of land. This is shown in Table 5-5 and indicative locations shown in Figure 5-5 below:

Table 5-5 Indicative Existing and Allocated West of England Employment Sites and Area

	Approximate Number of Employment Sites	Total Estimated Existing Safeguarded & Allocated land (ha)
BANES	21	290
Bristol	111	1,599
N. Somerset	61	704
S. Glos.	58	1,530
Total	**251**	**4,123**

Source: Atkins based on Council provided GIS data, 2015

Figure 5-5 Indicative Existing and Potential Future West of England Employment Sites



Source: Atkins based on Council provided GIS data, 2015

Commercial Development Pipeline

5.13. Data on employment floorspace commitments have been provided by the four West of England authorities. In the West of England there are outstanding but presently unimplemented planning permissions which will lead to gains in B class uses, thus contributing towards meeting future demand for employment floorspace. This data is provided for indicative purposes in this section to provide an indication of available space to meet future demand.

5.14. The net gain figures, which factor in unimplemented schemes[33] which will lead to a loss of employment land, are separated into office (B1a, B1b) industry (B1c, B2), warehousing (B8) and mixed use, are presented in Table 5-6, separated by UA.

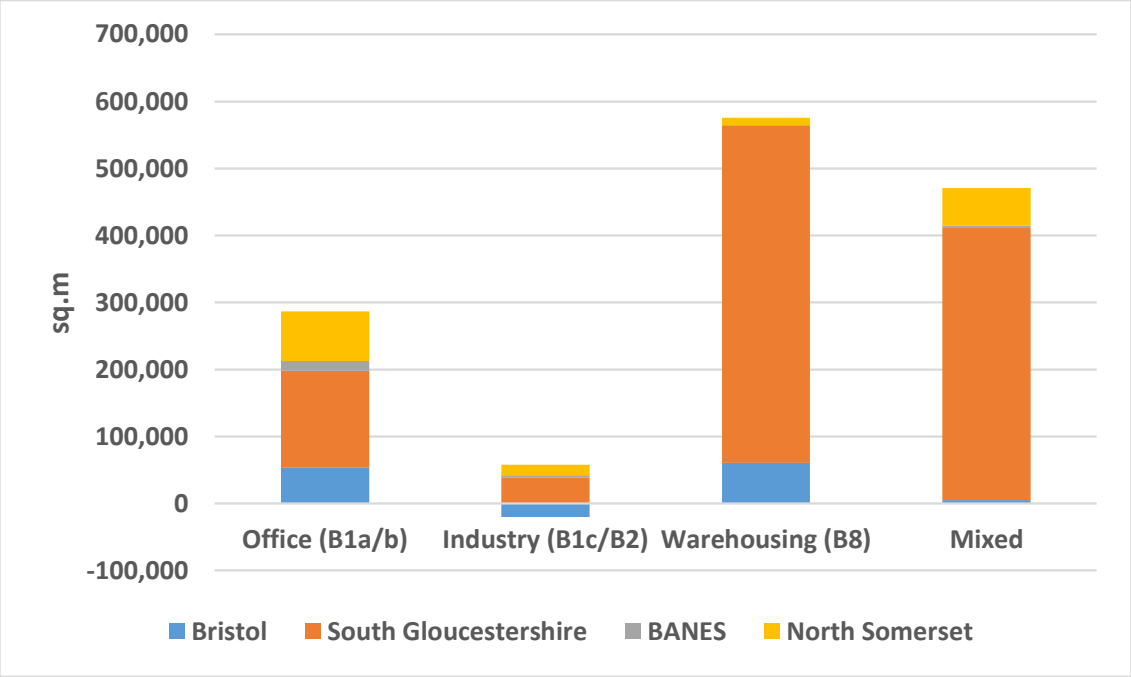
Table 5-6 B-class Net Floorspace (m^2) Planning Permission Commitments by Unitary Authority

	Office B1a/b	Industry B1c/B2	Warehousing B8	Mixed	Total
BANES	14,878	2,952	212	3,150	21,192
Bristol	53,580	-20,033	60,970	5,204	99,721
North Somerset	73,612	15,960	11,106	56,137	156,815
South Gloucestershire	84,471	16,271	503,277	346,091	950,110
Total	**286,541**	**37,930**	**575,565**	**470,582**	**1,227,838**

Source: Atkins based on Council supplied data, 2015

5.15. Existing commitments in South Gloucestershire are the most significant, with the potential to deliver around 1million m^2 of employment floorspace. A particular focus of these commitments is on industry and warehousing, much of this lies within the Avonmouth/Severnside FEMA sub-area (approximately 768,941m^2). The Central Park scheme is a notable contributor to this figure (with around 300,000 m^2 of committed development, as is the longstanding consent for development of the ICI Chemical Works land. Figure 5-6 shows net b-class commitments by unitary authority.

Figure 5-6. Net B-class Floorspace Commitments by Unitary Authority



Source: BCC, N.Som, S.Glos & BANES Planning Data & Monitoring Reports 2014/2015

[33] Generally the permissions provided by the UAs are Full Applications, although some are Outline and Change of Use.

Potential Future Employment Land Supply to Meet Demand

5.16. This section identifies and quantifies land/floorspace that has the potential to be developed in the future to help meet projected demand. It identifies undeveloped brownfield or greenfield sites with potential to accommodate future employment uses in the period 2016 to 2036. This figure is used to contrast with the expected future demand as defined in Section 6. This will allow a conclusion to be made on whether there is a sufficient available land in the WoE or whether further sites may be required.

5.17. As described in the policy review section above (Chapter 2), to help achieve strategic economic objectives the four UAs in coordination with the WELEP, have identified a range of currently undeveloped sites to meet future demand. This include an enterprise zone (EZ), certain areas within five enterprise areas (EA) and specific sites/locations within the South Bristol area. Some of these sites are allocated in local planning policy but some are not necessarily currently allocated. These sites are considered to have a reasonable chance of being developed in the planning period.

5.18. There are also other potential employment sites and locations across the WoE area that could help address future demand. Some of these sites are those undeveloped sites with planning permission that are identified for indicative purposes in the assessment of the commercial development pipeline (Table 5-6 above). Other sites are based on information provided by the four UAs or observations of vacant development sites within existing employment areas made during the field survey. Careful attention has been made not to ‘double count’ any sites included in the various sources of information described above.

5.19. Potential sites/locations and the available land or floorspace are shown in Table 5-7 below. It should be noted that this analysis is unlikely to identify every site within the entire available WoE portfolio of potential employment sites. However, it is based on the best available information and provides a robust basis to compare supply and demand at a strategic level.

5.20. Note that some sites are shown in floorspace (m^2). This is because the information on the development potential for employment uses of these sites was only provided in square metres, not hectares. As these sites are town centre sites assumed to provide multi-storey employment accommodation it would not be appropriate to convert them to hectares (land) using plot ratio assumptions.

5.21. See Appendix B for a more detailed breakdown of potential employment sites described in Table 5-7 below:

Table 5-7 Potential WoE Employment Land/Space to meet future demand

Unitary Authority	Site (s)/Sub Area	Developable space/Land		Suitable uses	Source of Information & Notes
		Sq. m	Ha		
BANES	Bath Riverside EA (net after losses)	33,348		Office	Bath Core Strategy 2014
BANES	Devt. Sites in BANES:		28.5	Mixed office/ industry/ warehousing	GIS mapping from site survey observations
Bristol	Temple Quarter EZ (Bristol Centre)	186,248		Office	Bristol Core Strategy (2010) & Temple Quarter EZ Development Prospectus (2014)
Bristol	City Centres not EZ	30,761		Office	Bristol Core Strategy & Monitoring data
Bristol	South Bristol (Hengrove Park & Town Centres)	45,050		Mainly office	Bristol Core Strategy (2010) Policy BCS1 and South Bristol Employment Sites and Premises Assessment
Bristol	South Bristol - Site BSA1305 0.8ha - Site BSA1119 0.9ha		1.7	Mainly industrial/ warehousing	Bristol CS & consultation with BCC to define deliverable sites
Bristol	Other areas of Bristol	-30,247		Office	Bristol Core Strategy & Monitoring data
Bristol/S.Glos.	Avonmouth/Severnside EA:		364.8	Mainly industrial/ warehousing some office	Avonmouth/Severnside Devt. Strategy and consultation with SGC and BCC
N. Som.	Junction 21 EA: -		42.2	Mixed office/ industry /warehousing	North Somerset Council consultation and J21 EA website developer zone
N. Som.	Various sites in N. Somerset:		54.0	Mixed office/ industry /warehousing	North Somerset Council consultation
S. Glos.	Filton EA (North/East Bristol Fringe)		74.6	Mixed office/ industry/ warehousing	S Glos Employment Land Supply Assessment (2014) and PT14/3867/O
S. Glos.	Emersons Green EA		43.6	Mixed office/ industry/ warehousing	S Glos Employment Land Supply Assessment (2014) and GIS mapping from site survey observations
S. Glos	North/East Fringe		9.5	Mixed office/ industry/ warehousing	S Glos Employment Land Supply Assessment (2014) and GIS mapping from site survey observations
S. Glos	Yate		12.5	Mixed office/ industry/ warehousing	Consultation with SGC
Total		**265,160**	**631.4**		

Source: Atkins based on Council provided data, 2015

5.22. Table 5-7 shows that in total there is approximately 631.4 ha of land in the WoE that could accommodate a range of B-uses (office, industrial and warehousing). As described above this may not include every small site available. It is based on a variety of information and data provided by the four UAs and publicly available on Council websites. There is also around 265,160 m^2 of floorspace in urban locations to accommodate mainly office uses. A large percentage of the available land is at Avonmouth/Severnside (57.8 %). The majority of available office space is in Bristol City Centre (70 %).

5.23. The relative proportions of available land and floorspace as shown in Table 5-7, are shown by sub-area in Tables 5-8 and 5-9 below. The total available land by UA is shown in Table 5-10.

Table 5-8 Indicative Developable Employment Land in West of England by Sub-area

Sub-area	Ha	% of Total
Avonmouth/Severnside	364.8	57.8%
North Bristol fringe	140.2	22.2%
M5 corridor/Weston	96.2	15.2%
South Bristol	1.7	0.3%
Other areas (rural)	28.5	4.5%
Total	**631.4**	

Source: Atkins based on Council provided data, 2015. Figures may not add up due to rounding

5.24. Table 5-9 below show the developable town centre floorspace. Note these floorspace figures are shown separately to the land figures in Table 5-9 above as they were provided in square metres and not hectares and as described above it would not be appropriate to convert them to land as the plot ratios are uncertain due to their town centre location. The area classifications in Table 5-9 do not mean that other town centres across the WoE such as Weston-super-Mare, Yate, Portishead, Thornbury etc. do not have available office floorspace. The developable employment space in these other locations is either captured in the land calculations above or the specific information is not available in floorspace terms.

Table 5-9 Developable Town Centre Office Floorspace in West of England by Sub-area

Sub-area	Sq. m.	% of Total
Temple Quarter EZ (Bristol Centre)	186,248	70.2%
City Centre not EZ	30,761	11.6%
South Bristol (Hengrove Park & Town Centres)	45,050	17.0%
Other areas of Bristol	-30,247	-11.4%
Bath Riverside	33,348	12.6%
Total	**265,160**	**100%**

Source: Atkins based on Council provided data, 2015

Table 5-10 Developable Employment Land in West of England by Unitary Authority

Unitary Authority	Ha	% of Total
BANES	28.5	5%
BCC	19.7	3%
North Somerset	96.2	15%
South Glos.	487.0	77%
Total	**631.4**	

Source: Atkins based on Council provided data, 2015

5.25. Table 5-11 below shows the total developable land/space by use type and UA in floorspace terms. This is based on a conversion of the total available land in hectares as shown in Table 5-7 above (approx. 631.4 ha) to floorspace using the plot ratios (50% for Office and Warehousing, or 40% for North Somerset and South Glos office and 40% for Industrial). The apportionment of floorspace to land use type (i.e. office, industrial, warehousing) is based on the analysis shown in Table 5-7. For a detailed breakdown of land use by site and area see Appendix B.

Table 5-11 Developable Employment Space in West of England by Unitary Authority (m^2)

	Office B1a/b	Industry B1c/B2	Warehousing B8	Total
BANES	47,500	38,000	47,500	133,000
Bristol	-	39,400	49,250	88,650
North Somerset	128,240	128,240	160,300	416,780
South Gloucestershire	253,378	913,113	977,125	2,143,616
Total	**429,118**	**1,118,753**	**1,234,175**	**2,782,046**

Source: Atkins based on Council provided data, 2015

Field Survey - Sites Assessments

5.26. The size of the West of England area prevents a strategic study of this scope from assessing all employment sites across. However, the four UAs have provided a list of 25 sites and strategic employment areas across the WoE considered to be key and potential employment locations to be assessed as part of the EDNA. It was agreed that these sites would be assessed through a site reconnaissance exercise to develop an understanding of their qualities, key issues and potential to provide land to meet future economic development needs.

5.27. The sites were visited by the consultant team in June 2015 and assessed against a range of criteria. The criteria included an assessment of a broad range of qualities of the sites and their surroundings and their suitability for employment uses. Criteria includes the supporting infrastructure, the levels of occupancy and the suitability of the sites for their current use. The site assessment exercise has a dual purpose of helping to build an understanding of the WoE employment land portfolio and its suitability to meet employment needs and also to provide evidence of the potential to support future employment growth at these sites. The full list of criteria assessed during the field survey is presented below:

- Quality of site and surroundings – including observations of quality and general upkeep of buildings, public realm and environment as a poor quality environment could deter potential occupiers.
- Accessibility and conflicts with neighbouring use – assessing the accessibility of the site, circulation and parking within it, proximity to the strategic road network and compatibility of noisy and smelly employment uses with neighbouring uses.
- Current usage and occupancy – assessing the levels of occupation and usage at the time of visit and indicates the condition of the local market.
- Estimated vacancy – which predicts the number of units vacant at the time of assessment.
- Existing and planned infrastructure – to identify infrastructure schemes which could affect the employment site.
- Appropriateness for waste uses – to assess the suitability of the site for waste or recycling facilities.
- Development opportunities – which identified the potential for expansion, intensification and redevelopment for employment uses.
- Fitness for purpose – assessing the overall quality of the site and makes judgement on its suitability for existing and future employment type and amount.

5.28. Table 5-12 below presents a summary of the key criteria assessed on the field survey including predominant employment use typology general description, suitability for employment uses, and development opportunities identified within the site/area.

Table 5-12 West of England Key Employment Sites – Field Survey

Site/area	Unitary Authority	Typology	Site General Description	Suitability for Employment Use	Opportunity for Employment Use Expansion
1) Bath – existing Locksbrook Road/Brassmill Lane industrial area	BANES	Factories, logistics and trade counter units	Good quality industrial area. Well occupied, low vacancy rate. Poor Accessibility Potential for congestion on residential roads in the area.	Suitable for existing use. Not suitable for Waste or Recycling facilities due to nearby residential area	Limited opportunity for growth or intensification due to the existing high levels of occupation and the residential nature of the surrounding area. Would benefit from Public Realm improvements associated with the Riverside Masterplan
2) Keynsham – existing Broadmead Lane/Pixash Lane Industrial Estate	BANES	Mixed industrial, logistics, trade. Services and retail nearby	Good quality area with business park nearby. Well occupied, estimated vacancy of 10%. Some congestion on Ashmead Rd.	Suitable for waste and recycling facilities. Recycling centre already present on the estate.	Expansion to the east is possible although access will be an issue due to the width of Worlds End Lane and the existing refuse depot.
3) Midsomer Norton – existing Westfield Industrial Estate	BANES	Large Industrial estate. Printing factory, workshops and trade counter	Well occupied, low vacancy rate Access is good although residential in nature.	Suitable for existing use, low vacancy rate (7%) Not suitable for recycling or waste facilities.	Although well used locally there exists the opportunities for intensification of small and medium units to low rise development.
4) Midsomer Norton – existing Old Mills Industrial Estate and (unallocated) land to the west	BANES	Industrial estate. Trade counter units, retail warehouse	Rural setting Good quality buildings. Good access from A362. Isolated from other uses. Split partly by A362.	Suitable for existing uses. Not suitable for waste or recycling facilities.	Potential to redevelop vacant retail warehouse to expand on existing estate. Some areas are under occupied.
5) Peasedown St. John – existing Bath Business Park and (unallocated) land to the south west	BANES	Business park with some non-industrial uses	High quality surroundings. Good access. Well occupied, vacancy rate (10%)	Contemporary business park, occupied by suitable office and industrial uses. Not suitable for waste facilities	Potential for infill development to the east of the existing estate.
6) Somerdale Factory, Keynsham 10k sq. m. of office development as part of the redevelopment	BANES	Former Chocolate factory, redevelopment involves B1 units	High quality landscape and setting. Poor accessibility, likely to lead to congestion on nearby residential roads. Not presently used industrially	Suitable for business park, (uses B1a – c). Nearby railway station good for accessibility. Road access more challenging	Good location for a high quality business park.
7) Avonmouth (and	Bristol (&	Heavy	Situated far from	Suitable for current	Avonmouth is seen as a

Site/area	Unitary Authority	Typology	Site General Description	Suitability for Employment Use	Opportunity for Employment Use Expansion
Severnside – see 17 below)	South Glos – see 17 below)	Industry, port buildings, trade counter and smaller units	neighbourhoods in an area of industry. Good access. The proposed additional M49 junction would improve access Low vacancy rate of 10%	heavy industry use. Also suitable for waste or recycling facilities. BCS4 supports the possibility of energy from waste or biomass energy facilities.	focus for regeneration in the Bristol Core Strategy. There is large scale scope for regeneration to accommodate significant employment growth
8) St Philips Marsh PIWA	Bristol	B2 and B8 units, mix of heavy industry, small and medium units and refuse and recycling	Good occupancy levels, 7% vacancy rate. Close to Temple Meads station. Poor accessibility by road. Congestion likely with nearby residential area.	Generally fit for purpose despite several poorer quality areas. Suitable for waste and recycling facilities alongside those already present.	Regeneration for mixed use could occur if demand declines. At present the estate appears to be fulfilling a purpose. Location close to city centre is important.
9) Brabazon Hangar PIWA (and Filton Enterprise Area) – See 19) Filton below	Bristol	Mixed	Good quality surrounding area. Area is traditionally industrial. Accessibility is good. Neighbours Airbus Campus.	Good location in existing area of industry. Good Access to M32, M4, M5, A38, A4174 and Bristol Parkway, Patchway and Filton Abbeywood.	Extensive area in a traditionally industrial area. Could be developed to complement existing employment types nearby. Development of Filton Airfield would complement development of this site.
10) Junction 21 Enterprise Area	N. Somerset	Greenfield site	Undeveloped land next to M5. Most sites have Planning Permission. Good Accessibility	Very appropriate for employment close to M5. Not appropriate for Waste of Recycling facilities given aspirations for mixed office, industrial and residential at the site	A number of developments are under way, with the potential for significant employment growth.
11) Weston Town Centre	N. Somerset		Good quality surroundings. Pedestrianisation of some streets makes vehicular access to some sites challenging. The estimated vacancy rate is 15%.	Recent regeneration schemes have improved the town centre. Suitable for office space. Not suitable for waste uses.	Opportunities for office units (mainly smaller but some medium/large sites).
12) Clevedon Business Park (Kenn Road) and St.Modwens Development Site	N. Somerset	Mixed Industrial, some offices and larger B2/B8 sheds	Outline permission for six plots for offices and warehouses. Good quality surroundings. Good accessibility.	Suitable for B1 B2 and B8 uses. Not suitable for waste or recycling facilities.	Opportunity to develop the existing plots of undeveloped land to expand the existing employment area.
13) Marine View	N. Somerset	Mixed use	Good quality area.	Suitable for a mix of	Opportunity exists for

Site/area	Unitary Authority	Typology	Site General Description	Suitability for Employment Use	Opportunity for Employment Use Expansion
(Portishead)		town centre site. Business Parks. B1, B2 and B8 regeneration projects.	Good access off of A369. Well used with a low estimated vacancy rate.	office and light industry. Not suitable for waste uses	extensive redevelopment of the area, further expanding on recent regeneration projects which have focused on B1 units.
14) Severnside	South Glos.	(As with Avonmouth) Heavy Industry, port buildings, trade counter and smaller units	Situated far from neighbourhoods in an area of industry. Good access. The proposed additional M49 junction would improve access. Vacancy rate (10%)	Suitable for current heavy industry use. Also suitable for waste or recycling facilities. CS35 supports the possibility of energy from waste or biomass energy facilities.	Avonmouth/Severnside is seen as a focus for regeneration and development in the S Glos Planning Strategy. There is large scale scope for development to accommodate significant employment growth
15) North Fringe – Aztec West	South Glos.	Business Park	Very good quality business park with excellent surroundings. Good accessibility from A38, M4 and M5. Well used. Metrobus operational by 2020.	Suitable site for offices. Inappropriate for waste uses.	Limited opportunity for intensification. One major site remains. Limited car parking is an existing issue, planned improvements to public transport (Metrobus) could alleviate some problems.
16) North Fringe – Land east of A38, Filton / Patchway	South Glos.	Former airfield and Cribbs Causeway out of town shopping centre	Very large site. Planning Application approved for residential led, regeneration of the airfield with some office space. Good access A38.	Suitable for B1, B2 and B8 development.	Opportunities for major redevelopment of large vacant site with a history of industrial use. The opportunity exists to incorporate business and industrial parks within a redevelopment.
17) East Fringe – Emersons Green	South Glos.	Business Park with Supermarket distribution centre, Science Park	Good surroundings, with residential and undeveloped greenfield nearby. Accessibility is good from A4174. Separated from nearby residential area. Good occupancy	Suitable for storage, warehousing and distribution. Suitable for offices or business park. Inappropriate area for waste or recycling facilities	Several undeveloped areas offer opportunities for extension to existing area. Development of a business park similar to that at Aztec West is realistic.
18) East Fringe – Longwell Green Industrial Estate	South Glos.	Industrial trading estate with encroaching retail warehouses. Small industrial estate	Good quality area. Good access from A4174 ring road. Good occupancy levels, (10%) vacancy. Encroachment from retail warehouses may be adding pressure to existing and future B uses.	Suitable for current B uses. Not suitable for waste uses.	A number of disused sites within the area hold potential for redevelopment. Redevelopment likely to be for retail based on local market.

Site/area	Unitary Authority	Typology	Site General Description	Suitability for Employment Use	Opportunity for Employment Use Expansion
19) Yate – Beeches Industrial Estate and Great Western Business Park	South Glos.	Industrial Estate with B2 and B8 uses and Business Park	Good quality industrial estate. Good surroundings. Access is reasonable, congestion is an issue on local roads. Vacancy rates are low (est 7%).	Suitable for uses which do not attract significant HGV traffic due to access issues locally. Area is diversely used, (B1, B2, B8 all present). Not suitable for waste facilities	Few opportunities in this well occupied area. Limited scope for expansion. Opportunities to redevelop underused areas.
20) Yate – Westerleigh Business Park	South Glos.	Industrial Estate with B1, B2 and B8 units.	Good quality surroundings. Within an extensive area of employment. Reasonable access. Local congestion	Suitable for uses which do not attract HGV traffic. Suitable for B1, B2 and B8 use. Not suitable for waste facilities	Some units recently refurbished. Several opportunities to redevelop. Limited opportunity to intensify.
21) Thornbury	South Glos.	Industrial Estate with B2 and B8 with some trade counter. B1 nearby	Good quality surroundings on edge of town. Good access to A38. Residential kept relatively separate. Low vacancy (7%).	Suitable for small and medium sized units, and larger warehousing units.	Opportunities are good for expansion. Although the Bristol and Bath Green Belt borders the site to the south.
22) Pucklechurch Trading Estate	South Glos.	Traditional Industrial estate.	Reasonable surroundings with good access. Neighbouring HMP Ashfield. Well occupied area. Low vacancy rate	Suitable for B2 and B8 use. Some B1 use present in the area.	Poor quality in parts and potential for regeneration although existing use implies a purpose is being fulfilled.

Source: Atkins field survey (2015)

Summary

5.29. The supply assessment has assessed a variety of data sources and conducted a field survey of key sites. Data sources analysed includes VOA, EGi and planning permission data from the four UAs. The analysis has allowed a quantification of the amount of existing and potential future employment stock to be made and an assessment of whether that stock is appropriate to meet future economic development needs.

5.30. The headline supply findings include that there is around 15m m^2 of employment floorspace in the WoE. Around 54% is warehousing (B8), 25% Industry (B1c/B2) and 21% office (B1a/b). Bristol has 41% of total B use stock, South Glos 30%, North Somerset 22% and BANES 7%. Using industry standard plot ratios this equates to around 3,181 ha. Analysis of indicative information on safeguarded/existing and allocated potential future employment land finds that there is approximately 4,123ha in 251 sites or broad locations.

5.31. There is around 1,811,515 sq. m of available marketed stock. 38% is B2, 37% B8 and 25% B1. This equates to an overall employment vacancy rate of 12%. Industrial vacancy rate is 18%, office 14% and warehousing 8%. Frictional vacancy rates are the optimum vacancy rates to allow the market to churn and operate effectively. In this study a broad assumption of 10% is assumed to be an appropriate level of vacancy. Therefore, in the WoE there is approximately 2% oversupply of available employment space. This is factored into the supply demand balance at Chapter 7.

5.32. In terms of space with potential to meet future demand there is around 265,160 m^2 of floorspace on existing or vacant employment land that is available for town centre office development. Analysis of Council planning permission data shows there is around 1.25m m^2 of committed employment floorspace (58% B8, 28% B1 and 13% B2).] There is 631.4 ha of land that has reasonable potential to be developed for employment uses by 2036. This equates to around 2,782,046 m^2 if converted to land using plot ratios. Most of the available land would be suitable for a mix of industrial, warehousing or business park style office.

5.33. The field survey assessed the key existing and potentially developable employment sites across the WoE FEMA. All sites were considered appropriate for employment use and the stock of employment land in the WoE is generally considered fit for purpose.

5.34. In summary the WoE has a good portfolio of fit for purpose employment land. There is a significant amount of land available to meet future demand although the locations and types of land need to be closely matched if the future needs of businesses and economic development objectives are to be met. This matching of supply and demand is covered in Chapter 7.

6. Demand Assessment

Introduction

6.1. This section assesses future employment floorspace and land requirements by use class (B1a/b, B1c/B2, and B8) for each of the four West of England authorities and the FEMA as a whole. In accordance with Planning Practice Guidance and best practice, the assessment of future employment land requirements considers a range of scenarios including[34]:

- A scenario based on Oxford Economics' medium-high employment growth scenario (2015);
- A scenario based on Oxford Economics' high employment growth scenario (2015); and
- A trend-based scenario based on historical employment growth levels.

6.2. After assessing the spatial implications of the various scenarios above, adjustments are made where appropriate, using 'bottom-up' market intelligence. These adjustments enable the overall demand exercise to better reflect the unique spatial characteristics of the WoE economy. These adjusted employment land demand estimates then feed the gap analysis (Chapter 7) and final conclusions (Chapter 8).

Oxford Economics Employment Forecasts

6.3. As described in Chapter 2 above, Oxford Economics (OE) produced employment forecasts for the West of England in 2010, 2013 and 2015. The 2013 OE employment forecast underpinned the West of England Strategic Economic Plan (SEP)[35], the Wider Bristol SHMA and Bath SHMAs and the version of the West of England EDNA published in late 2015 as part of the Joint Spatial Plan Issues and Options consultation. The latest 2015 OE forecasts form the basis of this chapter and the current EDNA study.

6.4. OE produced five employment forecast scenarios; baseline, low, medium low, medium-high and high growth scenarios. This EDNA study assesses the OE medium-high and high scenarios. This is justified because the medium-high scenario is used to underpin existing planning policy evidence base documents (SEP and SHMAs). Use of the high scenario is justified because in spatial planning terms (as per the evolving WoE JSP) it is appropriate to follow a precautionary principle and plan for positive economic growth. The risk of following a more pessimistic view of future growth is that insufficient land could be provided to meet local business and economic development needs.

6.5. OE employment forecasts are based on a proprietary econometric model created and maintained by OE. The complex hybrid model[36] is based on a range of macro-economic inputs, assumptions and algorithms. The model is fed by global, national and regional economic factors. As an industry standard employment forecast model the OE work is appropriate to project demand for employment land in the WoE for this EDNA.

6.6. As with any attempt to estimate the unknown future there are inherent limitations. Limitations include that projections of the future are inevitably subject to margins of error. These margins of error increase as the level of geographical detail becomes smaller. The OE model also relies heavily upon published data. In relation to the EDNA this means that UA level forecasts are subject to potentially higher margins of error and are only displayed for indicative purposes and to help guide spatial conclusions in the absence of any other quantitative projections. See Appendix E for demonstration of variation of employment forecasts at UA level between 2010, 2013 and 2015 Oxford Economics employment forecasts. The alternative approach would be to provide employment forecasts at only a WoE level. However this would not allow a comparison of supply

[34] The assessment period for all scenarios is 2016-2036.

[35] The WoE SEP used the medium-high scenario and applied a .1.1% uplift. This was to reflect the fact OE forecasts were produced at a time that the UK was still emerging from a severe economic downturn. The SHMAs effectively used the same medium-high with 1.1% uplift growth scenario as the SEP when estimating the quantum of housing required to meet potential future jobs.

[36] OE model is a hybrid between the two traditional econometric modelling techniques of Vector Auto Regression (VAR) and Dynamic-Stochastic General Equilibrium (DSGE) and aims to take the best and remove the worst elements of each of these techniques.

and demand in different areas of the wider WoE FEMA and given the employment forecasts are provided at a UA level it seems appropriate to use that information.

6.7. The OE model does not necessarily build in assumptions based on potential future local policy initiatives designed to boost local economic growth. In this sense the OE employment forecasts are 'policy off'. Another important consideration is that UK wide macro-economic trends are a key input to the model. This means that national trends such as de-industrialisation and manufacturing decline, which are apparent at the national or even wider regional level, could be disproportionately applied to the more specific WoE level.

6.8. To address all these various issues and limitations an assessment of 'bottom up' information is made and contrasted with the 'top down' OE forecast information. The assessment of 'bottom up' information helps to verify the 'top down' information. If the OE forecasts differed significantly from the conclusions of the 'bottom up' local market intelligence there could be justification for adjusting the OE employment forecasts. The 'bottom up' analysis includes an assessment of a combination of evidence provided by stakeholders, agents and other appropriate sources of information such as the 'AMION West of England employment land forecasting model. This process is fully compliant with the PPG[37] and NPPF[38].

Methodology

6.9. Analysis in this section is based upon a range of employment growth projections. Under all scenarios, employment sectors have been mapped to the core B1a/b (office and research & development), B1c/B2 (light and general industrial) and B8 (storage and distribution) "employment" uses. As described above jobs in retail, leisure and other non B-use jobs are assessed in other evidence base documents. Job numbers have been converted to floorspace and land requirements by applying appropriate employment density and plot ratio assumptions.

6.10. The employment densities used in the demand assessment are in line with the Homes and Communities Agency's (HCA) Employment Densities Guide 2nd Edition (2010) and the plot ratios are in line with the Employment Land Reviews: Guidance Note (2004). It is noted that employment densities and plot ratios can vary significantly, depending on a range of factors including location (e.g. urban or out of town), site size and layout, and price-range (e.g. high-end or low-cost). In the case of plot ratios, a key influencing factor is the amount of parking spaces provided. Therefore the employment density and plot ratio assumptions summarised in **Table 6-1** below are meant to be indicative averages only and are ultimately based on professional judgement and consultation with UA officers.

Table 6-1 Employment density and plot ratio assumptions

Use class	Employment density	Plot ratio
B1a/b	14 m^2 per FTE	50% of site area (BCC and BANES) 40% (North Somerset and South Glos.)
B1c/B2	42 m^2 per FTE	40% of site area
B8	70 m^2 per FTE	50% of site area

Source: Atkins 2015

6.11. All figures presented in this chapter are rounded and may therefore not completely add up. Furthermore all projections of employment numbers, as well as floorspace and land requirements should be treated as indicative as they are sensitive to the assumptions underpinning their calculation, and they are subject to the inherent uncertainties of long term economic forecasting.

6.12. Oxford Economics' employment forecasts for the FEMA were provided as full time equivalent (FTE) jobs. The employment forecasts for the individual authorities were provided as total job numbers and were converted into FTEs by applying a 0.85 total jobs/FTEs ratio. This is based on the observed ratio of total jobs/FTEs across the FEMA which is 0.85.

6.13. As described above, once the OE employment forecasts scenarios are assessed a 'bottom up' scenario is created. This factors in the views of stakeholders, agents and analysis of other

[37] National Planning Practice Guidance (2015) para 031 Ref: 2a-031-20140306
[38] NPPF, para 158

relevant evidence such as the AMION employment land model. This bottom up scenario, which is a combination of 'top down' and 'bottom up' analysis feeds the final gap analysis and conclusions.

6.14. The demand forecast scenarios are provided at the UA level and the FEMA level. They are not provided at the FEMA sub-area level as the OE employment forecasts are only provided at the UA level. It would therefore not be appropriate or robust to extrapolate demand from the UA to the sub-area level. Also, on the supply side there is no reliable data on sub-area so it would not be possible to compare supply to demand by sub-area (Chapter 7). However, an assessment of supply and demand by sub-area is made qualitatively in Chapter 7 and Chapter 8 based on the evidence and analysis performed throughout the study.

Bath and North East Somerset

Bath and North East Somerset Scenario 1 – Oxford Economics medium-high projections

6.15. The main growth sectors (in absolute terms) are projected to include Information and communication; Professional, scientific and technical activities; and Accommodation and Food Services. The most notable decline is projected to take place in Manufacturing (Table 6-2).

Table 6-2 Oxford Economics BANES medium-high employment forecasts (FTEs) – selected sectors

Sector	Change 2016-2036	% change 2016-2036
Information and communication	980	24%
Professional, scientific and technical activities	1,500	21%
Administrative and support service activities	730	18%
Real estate activities	550	25%
Education	160	1%
Accommodation and food service activities	860	11%
Manufacturing	-450	-12%
Human health and social work activities	790	5%
All sectors	**7,430**	**8.5%**

Source: Oxford Economics

6.16. The number of FTEs in B use class sectors is forecast to increase from 37,500 in 2016 to 41,400 in 2036, an increase of approximately 11% (**Table 6-3**). Employment in B1a/b sectors is forecast to increase by approximately 4,100 FTE jobs between 2016 and 2036, which equates to an increase of 16%. Employment in B1c/B2 sectors is projected to decline by -8%, while B8 employment levels are expected to increase slightly (+3%).

Table 6-3 Oxford Economics BANES medium-high employment forecasts (FTEs) – B-use class sectors

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	26,100	30,200	4,100	16%
B1c/B2	3,800	3,500	-300	-8%
B8	7,500	7,700	200	3%
Total B use class	**37,400**	**41,400**	**4,000**	**11%**

Source: Oxford Economics, Atkins

6.17. Based on the above employment forecasts and the employment density and plot ratio assumptions summarised in **Table 6-1**, BANES' floorspace and land requirements over the period 2016-2036 are summarised in **Table 6-4** and **Table 6-55** below.

Table 6-4 BANES B-use class floorspace need (square metres) – Scenario 1

Use class	2016	2036	Change 2016-2036
B1a/b	376,000	435,000	59,000
B1c/B2	159,000	148,000	-11,000
B8	522,000	536,000	14,000
Total B use class	**1,057,000**	**1,119,000**	**62,000**

Source: Oxford Economics, Atkins

Table 6-5 BANES B-use class land need (hectares) – Scenario 1

Use class	2016	2036	Change 2016-2036
B1a/b	75	87	12
B1c/B2	40	37	-3
B8	104	107	3
Total B use class	**219**	**231**	**12**

Source: Oxford Economics, Atkins

6.18. According to Scenario 1, BANES will need approximately 12 hectares of additional B1a/b land between 2016 and 2036. Industrial and warehousing requirements are projected to be neutral at -3 and +3 hectares respectively.

Bath and North East Somerset Scenario 2 – Oxford Economics high-growth projections

6.19. According to Oxford Economics' high-growth scenario, full time equivalent employment (FTE) across all sectors in Bath and North East Somerset will increase by 4% between 2016 and 2036, an increase of approximately 3,700 FTE jobs.

6.20. The number of FTE jobs in B use class sectors is forecast to increase by 10% between 2016 and 2036, with much of the employment growth projected to come in B1a/b sectors (+3,800 FTE jobs). Employment in B1c/B2 sectors is projected to decline by 5% while B8 employment is forecast to increase by 4% (**Table 6-6**).

Table 6-6 Oxford Economics BANES high-growth employment forecasts (FTEs)

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	26,200	31,700	5,500	21%
B1c/B2	3,800	3,900	100	3%
B8	7,500	8,000	500	7%
Total B use class	37,500	43,600	6,100	16%
All sectors	**87,200**	**98,200**	**11,000**	**13%**

Source: Oxford Economics, Atkins

6.21. Based on the above employment forecasts and the employment density and plot ratio assumptions summarised in **Table 6-1**, BANES' floorspace and land requirements over the period 2016-2036 are summarised in **Table 6-7** and **Table 6-8** below.

Table 6-7 BANES B-use class floorspace need (square metres) – Scenario 2

Use class	2016	2036	Change 2016-2036
B1a/b	377,000	456,000	79,000
B1c/B2	159,000	165,000	6,000
B8	522,000	560,000	38,000
Total B use class	**1,058,000**	**1,181,000**	**123,000**

Source: Oxford Economics, Atkins

Table 6-8 BANES B-use class land need (hectares) – Scenario 2

Use class	2016	2036	Change 2016-2036
B1a/b	75	91	16
B1c/B2	40	41	1
B8	104	112	8
Total B use class	**219**	**244**	**25**

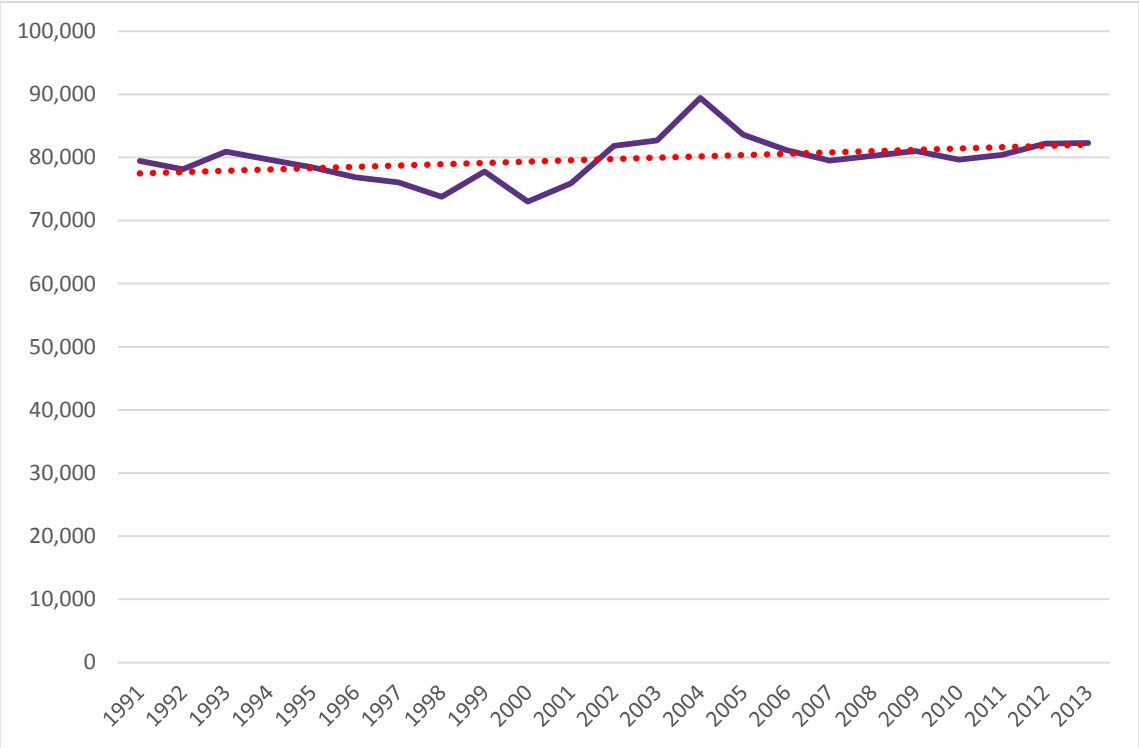
Source: Oxford Economics, Atkins

6.22. According to Scenario 2, BANES will need approximately 16 hectares of additional B1a/b land between 2016 and 2036, as well as 8 hectares of additional B8 land. Industrial land requirements are projected to increase by approximately 1 hectare.

Bath and North East Somerset Scenario 3 – Trend-based projections

6.23. Scenario 3 is a trend-based scenario based on BANES' historical employment growth levels between 1991 and 2013. As Figure 6-1 illustrates, there have been some fluctuations in the number of FTE jobs over that period but there is a clearly positive trend line over time.

Figure 6-1 BANES FTE employment 1991-2013



Source: Oxford Economics

6.24. In total, employment grew by 2,840 FTE jobs over the period 1991-2013, representing growth of approximately 4% (**Table 6-2**). Key growth sectors over that period included Professional Services; Administrative & Supportive Services; and Health. The greatest decline (in absolute terms) took place across the various Manufacturing sub-sectors. Wholesale employment also declined by approximately 470 FTE jobs.

Table 6-2 BANES FTE employment 1991-2013 – selected sectors

Sector	Change 1991-2013	% change 1991-2013
Education	+4,550	+66%
Professional, scientific and technical activities	+2,560	+60%
Human health and social work activities	+2,070	+19%
Information and communication	+1,980	+83%
Other service activities	+1,140	+90%
Electricity, gas, steam and air conditioning supply	-1,500	-94%
Accommodation and food service activities	-2,210	-24%
Manufacturing	-3,640	-48%
Public administration and defence; compulsory social security	-4,280	-53%
All sectors	**+2,840**	**+4%**

Source: Oxford Economics

6.25. The projection of these historical trends to 2036 suggests growth in B1a/b and B8 sectors and further decline in B1c/B2 sectors (**Table 6-10**).

Table 6-10 Trend-based employment projections (FTEs) – B-use class sectors – Scenario 3

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	26,100	28,100	2,000	8%
B1c/B2	3,200	900	-2,300	-72%
B8	7,800	8,000	200	3%
Total B use class	**37,100**	**37,000**	**-100**	**0%**

Source: Oxford Economics, Atkins

6.26. Under Scenario 3, B1a/b floorspace demand is projected to increase by some 29,000 square metres over the period 2016-2036, and B8 floorspace demand by 14,000 square metres. Demand for B1c/B2 floorspace is projected to decrease by 97,000 (**Table 6-31**).

Table 6-31 BANES B-use class floorspace need (square metres) – Scenario 3

Use class	2016	2036	Change 2016-2036
B1a/b	376,000	405,000	29,000
B1c/B2	134,000	37,000	-97,000
B8	543,000	557,000	14,000
Total B use class	**1,053,000**	**999,000**	**-54,000**

Source: Oxford Economics, Atkins

6.27. The above floorspace requirements translate into an indicative need for 6 hectares of additional B1a/b land over the period 2016-2036 (**Table 6-4**). The decreasing need for B1c/B2 land would theoretically result in a surplus of approximately 24 hectares of industrial land. B8 land requirements are projected to increase by approximately 3 hectares.

Table 6-4 BANES B-use class land need (hectares) – Scenario 3

Use class	2016	2036	Change 2016-2036
B1a/b	75	81	6
B1c/B2	33	9	-24
B8	109	111	3
Total B use class	**217**	**202**	**-16**

Source: Oxford Economics, Atkins

Bristol City Council

Bristol Scenario 1 – Oxford Economics medium-high projections

6.28. According to Oxford Economics' medium-high scenario, FTE jobs in Bristol will increase by 22,020 between 2016 and 2036. Most of the projected growth will come from the Professional, scientific and technical services sector which is forecast to provide over 8,320 additional FTE jobs by 2036. The most notable decline is projected to take place in Education and Manufacturing (**Table 6-13**).

Table 6-13 Oxford Economics Bristol medium-high employment forecasts (FTEs) – selected sectors

Sector	Change 2016-2036	% change 2016-2036
Information and communication	1,540	16%
Professional, scientific and technical activities	8,320	31%
Administrative and support service activities	3,500	15%
Real estate activities	1,220	26%
Education	-290	-1%
Accommodation and food service activities	660	4%
Manufacturing	-1,130	-12%
Human health and social work activities	1,680	5%
All sectors	**22,020**	**9%**

Source: Oxford Economics

6.29. The number of FTEs in B use class sectors is forecast to increase by approximately 15,800 between 2016 and 2036, an increase of approximately 12%. Employment in B1a/b sectors is forecast to increase by approximately 14,400 FTE jobs between 2016 and 2036, which equates to an increase of 15%. Employment in B1c/B2 sectors is projected to decline by 9%, while B8 employment levels are expected to increase by 9% (**Table 6-5**).

Table 6-5 Oxford Economics Bristol medium-high employment forecasts (FTEs) – B-use class sectors

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	96,800	111,200	14,400	15%
B1c/B2	9,200	8,400	-800	-9%
B8	23,800	26,000	2,200	9%
Total B use class	**129,800**	**145,600**	**15,800**	**12%**

Source: Oxford Economics, Atkins

6.30. Based on the above employment forecasts, Bristol's floorspace and land requirements over the period 2016-2036 are summarised in **Table 6-6** and **Table 6.7** below.

Table 6-6 Bristol B-use class floorspace need (square metres) – Scenario 1

Use class	2016	2036	Change 2016-2036
B1a/b	1,394,000	1,601,000	207,000
B1c/B2	385,000	352,000	-33,000
B8	1,668,000	1,818,000	150,000
Total B use class	**3,447,000**	**3,771,000**	**324,000**

Source: Oxford Economics, Atkins

Table 6-7 Bristol B-use class land need (hectares) – Scenario 1

Use class	2016	2036	Change 2016-2036
B1a/b	279	320	41
B1c/B2	96	88	-8
B8	334	364	30
Total B use class	**709**	**772**	**63**

Source: Oxford Economics, Atkins

6.31. According to Scenario 1, Bristol will need approximately 41 hectares of additional B1a/b land and 30 hectares of B8 land between 2016 and 2036. Industrial requirements are projected to decline by -8 hectares.

Bristol Scenario 2 – Oxford Economics high growth projections

6.32. According to Oxford Economics' high-growth scenario, full time equivalent employment (FTE) across all sectors in Bristol will increase by approximately 14% between 2016 and 2036, an increase of approximately 33,100 FTE jobs.

6.33. The number of FTE jobs in B use class sectors is forecast to increase by 18% between 2016 and 2036. Most of the employment growth is projected to come from B1a/b sectors (+19,900 FTE jobs). Employment in B1c/B2 sectors is projected to increase by 2% while B8 employment is forecast to increase by 15% (**Table 6-8**).

Table 6-8 Oxford Economics Bristol high growth employment forecasts (FTEs)

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	97,000	116,900	19,900	21%
B1c/B2	9,200	9,400	200	2%
B8	23,800	27,300	3,500	15%
Total B use class	130,000	153,600	23,600	18%
All sectors	**238,500**	**271,600**	**33,100**	**14%**

Source: Oxford Economics, Atkins

6.34. Based on the above employment forecasts, Bristol's floorspace and land requirements over the period 2016-2036 are summarised in **Table 6-9** and **Table 6-10** below

6.35. **Table 6-9 Bristol B-use class floorspace need (square metres) – Scenario 2**

Use class	2016	2036	Change 2016-2036
B1a/b	1,397,000	1,683,000	286,000
B1c/B2	386,000	395,000	9,000
B8	1,669,000	1,908,000	239,000
Total B use class	**3,452,000**	**3,986,000**	**534,000**

Source: Oxford Economics, Atkins

Table 6-10 Bristol B-use class land need (hectares) – Scenario 2

Use class	2016	2036	Change 2016-2036
B1a/b	279	337	57
B1c/B2	96	99	2
B8	334	382	48
Total B use class	**710**	**817**	**107**

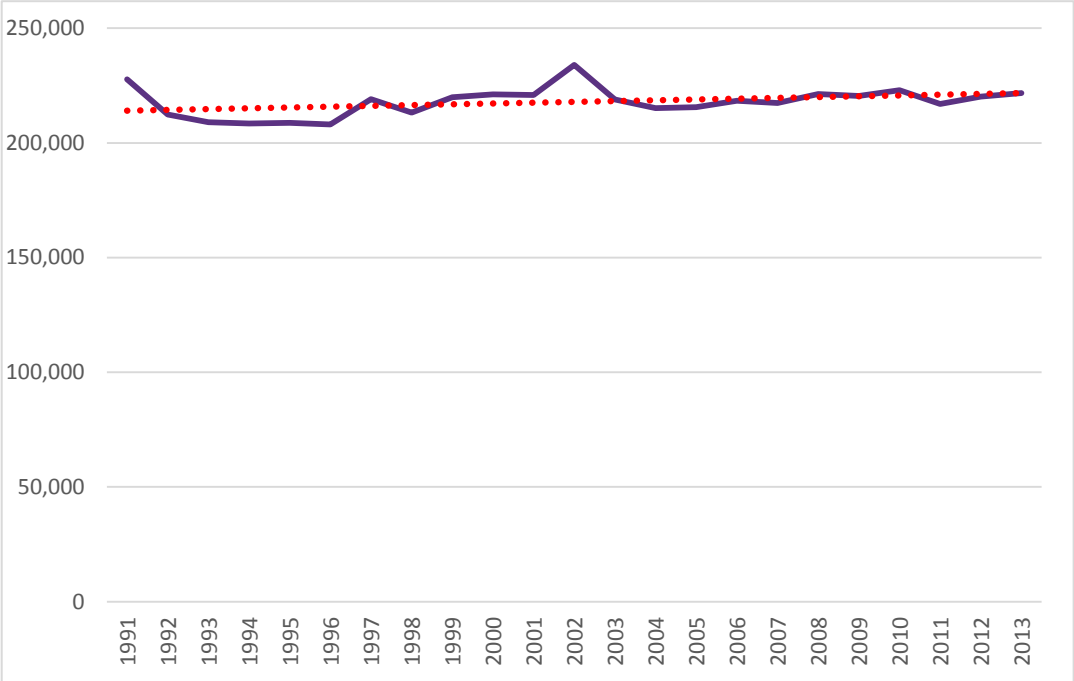
Source: Oxford Economics, Atkins

6.36. According to Scenario 2, Bristol will need approximately 57 hectares of additional B1a/b land between 2016 and 2036, as well as 48 hectares of additional B8 land. Industrial land requirements are projected to increase by 2 hectares.

Bristol Scenario 3 – Trend-based projections

6.37. As **Figure 6-2** illustrates, there is an overall positive trend in Bristol's employment numbers over the period 1991-2013.

Figure 6-2 Bristol FTE employment 1991-2013



Source: Oxford Economics

6.38. In total, employment declined by approximately 6,000 FTE jobs over the period 1991-2013, a decline of approximately 3%. Key growth sectors over that period included Health and social work activities; Professional Services; Education; and Real estate activities. However the Manufacturing and Construction sectors experienced a combined loss of nearly 20,000 FTE jobs over that period, and there was also considerable decline in the Accommodation and food services; and Wholesale and retail trade sectors (Table 6-11).

Table 6-11 Bristol FTE employment 1991-2013 – selected sectors

Sector	Change 1991-2013	% change 1991-2013
Human health and social work activities	+10,140	+49%
Professional, scientific and technical activities	+8,510	+60%
Education	+4,720	+31%
Real estate activities	+2,790	+185%
Wholesale and retail trade; repair of motor vehicles and motorcycles	-2,880	-8%
Accommodation and food service activities	-3,820	-24%
Construction	-8,450	-47%
Manufacturing	-11,350	-54%
All sectors	**-6,000**	**-3%**

Source: Oxford Economics

6.39. The projection of these historical trends to 2036 suggests growth in B1a/b employment and decline in B1c/B2 and B8 employment (**Table 6-12**).

Table 6-12 Bristol trend-based employment projections (FTEs) – B-use class sectors – Scenario 3

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	95,200	108,200	+13,000	+14%
B1c/B2	7,600	900	-6,700	-88%
B8	21,800	21,000	-800	-4%
Total B use class	124,600	130,100	+5,500	+4%

Source: Oxford Economics, Atkins

6.40. Under Scenario 3, B1a/b floorspace demand is projected to increase by approximately 187,000 square metres over the period 2016-2036. Demand for B1c/B2 and B8 floorspace is projected to decrease by 284,000 and 59,000 respectively (**Table 6-13**).

Table 6-13 Bristol B-use class floorspace need (square metres) – Scenario 3

Use class	2016	2036	Change 2016-2036
B1a/b	1,371,000	1,558,000	+187,000
B1c/B2	321,000	37,000	-284,000
B8	1,526,000	1,467,000	-59,000
Total B use class	**3,218,000**	**3,062,000**	**-156,000**

Source: Oxford Economics, Atkins

6.41. The above floorspace requirements translate into an indicative need for 37 hectares of additional B1a/b land over the period 2016-2036 (Table 6-14). The decreasing need for B1c/B2 land would theoretically result in a surplus of approximately 71 hectares of industrial land and 12 hectares of storage and distribution land.

Table 6-14 Bristol B-use class land need (hectares) – Scenario 3

Use class	2016	2036	Change 2016-2036
B1a/b	274	312	+37
B1c/B2	80	9	-71
B8	305	293	-12
Total B use class	**660**	**614**	**-46**

Source: Oxford Economics, Atkins

North Somerset

North Somerset Scenario 1 – Oxford Economics medium-high projections

6.42. According to Oxford Economics' medium-high scenario, FTE jobs in North Somerset will increase by 14,100 between 2016 and 2036. The main growth sectors are projected to include Professional, scientific and technical services; Administrative and support service activities; and Human Health and Social Work. The most notable decline is projected to take place in the Manufacturing sector (**Table 6-15**).

Table 6-15 Oxford Economics North Somerset medium-high employment forecasts (FTEs) – selected sectors

Sector	Change 2016-2036	% change 2016-2036
Information and communication	750	32%
Professional, scientific and technical activities	3,000	45%
Administrative and support service activities	2,110	27%
Real estate activities	900	35%
Education	540	10%
Accommodation and food service activities	460	8%
Manufacturing	-680	-10%
Human health and social work activities	2,360	19%
All sectors	**14,070**	**17%**

Source: Oxford Economics

6.43. The number of FTEs in B use class sectors is forecast to increase by approximately 8,100 between 2016 and 2036, an increase of approximately 18%. Employment in B1a/b sectors is forecast to increase by approximately 7,200 FTE jobs between 2016 and 2036, which equates to an increase of 26%. B8 employment is also projected to grow (+13%), while employment in B1c/B2 sectors is projected to decline by 6% (Table 6-16).

Table 6-16 Oxford Economics North Somerset medium-high employment forecasts (FTEs) – B-use class sectors

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	27,900	35,100	7,200	26%
B1c/B2	6,200	5,800	-400	-6%
B8	9,800	11,100	1,300	13%
Total B use class	**43,900**	**52,000**	**8,100**	**18%**

Source: Oxford Economics, Atkins

6.44. Based on the above employment forecasts, North Somerset's floorspace and land requirements over the period 2016-2036 are summarised in **Table 6-17** and **Table 6-18** below.

Table 6-17 North Somerset B-use class floorspace need (square metres) – Scenario 1

Use class	2016	2036	Change 2016-2036
B1a/b	402,000	506,000	104,000
B1c/B2	262,000	245,000	-17,000
B8	683,000	778,000	95,000
Total B use class	**1,347,000**	**1,529,000**	**182,000**

Source: Oxford Economics, Atkins

Table 6-18 North Somerset B-use class land need (hectares) – Scenario 1

Use class	2016	2036	Change 2016-2036
B1a/b	100	126	26
B1c/B2	66	61	-4
B8	137	156	19
Total B use class	**302**	**343**	**41**

Source: Oxford Economics, Atkins

6.45. According to Scenario 2, North Somerset will need approximately 32 hectares of additional B1a/b land between 2016 and 2036, and an additional 13 hectares of B8 land. B1c/B2 land requirements are projected to decline by 3 hectares.

North Somerset Scenario 2 – Oxford Economics high growth projections

6.46. According to Oxford Economics' high-growth scenario, full time equivalent employment (FTE) across all sectors in North Somerset will increase by 22% between 2016 and 2036, an increase of approximately 18,600 FTE jobs. The number of FTE jobs in B use class sectors is forecast to increase by 26% between 2016 and 2036. Most of the employment growth is projected to come from B1a/b sectors (+9,000 FTE jobs). Employment in B1c/B2 and B8 sectors is projected to increase by 6% and 19% respectively (Table 6-19).

Table 6-19 Oxford Economics North Somerset high growth employment forecasts (FTEs)

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	28,000	37,000	9,000	32%
B1c/B2	6,200	6,600	400	6%
B8	9,800	11,700	1,900	19%
Total B use class	**44,000**	**55,300**	**11,300**	**26%**
All sectors	83,800	102,400	18,600	22%

Source: Oxford Economics, Atkins

6.47. Based on the above employment forecasts, North Somerset's floorspace and land requirements over the period 2016-2036 are summarised in **Table 6-20** and **Table 6-21** below.

Table 6-20 North Somerset B-use class floorspace need (square metres) – Scenario 2

Use class	2016	2036	Change 2016-2036
B1a/b	403,000	533,000	130,000
B1c/B2	262,000	276,000	14,000
B8	683,000	818,000	135,000
Total B use class	**1,348,000**	**1,627,000**	**279,000**

Source: Oxford Economics, Atkins

Table 6-21 North Somerset B-use class land need (hectares) – Scenario 2

Use class	2016	2036	Change 2016-2036
B1a/b	101	133	33
B1c/B2	66	69	3
B8	137	164	27
Total B use class	**303**	**366**	**63**

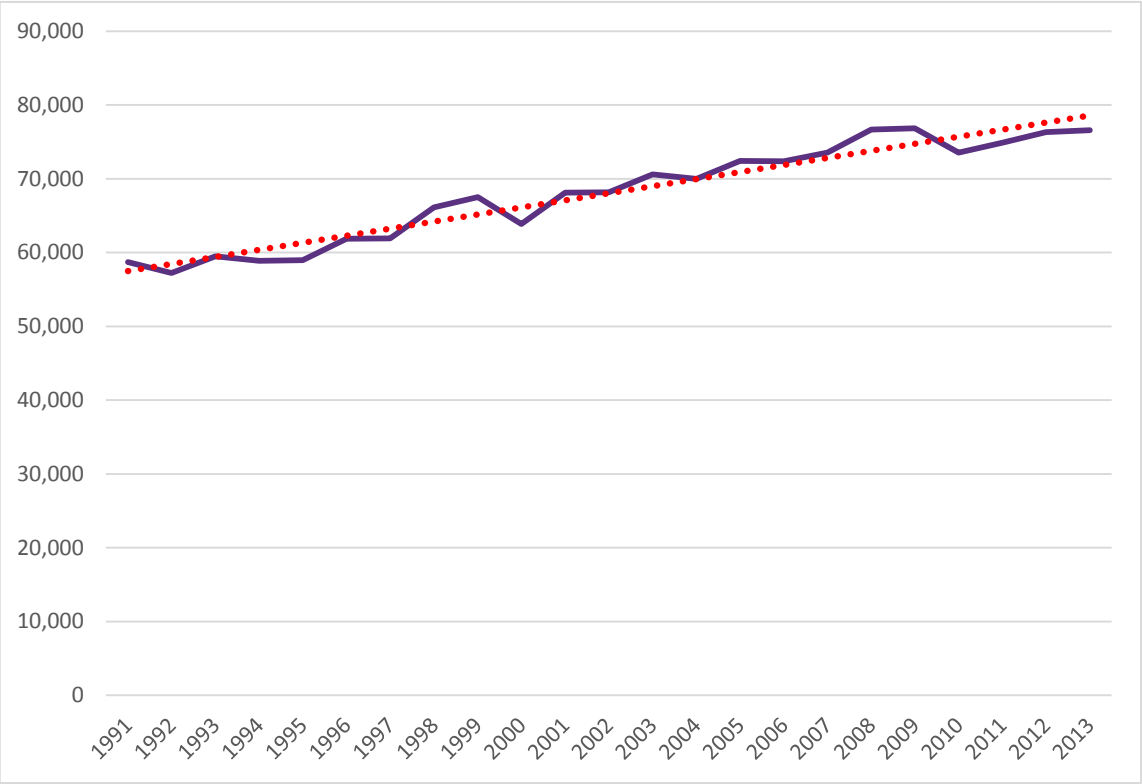
Source: Oxford Economics, Atkins

6.48. According to Scenario 2, North Somerset will need approximately 33 hectares of additional B1a/b land between 2016 and 2036, as well as 3 hectares of B1c/B2 land and 27 hectares of B8 land. In total, under the high-growth scenario, North Somerset is projected to need approximately 63 hectares of additional employment land by 2036.

North Somerset Scenario 3 – Trend-based projections

6.49. As Figure 6-3 illustrates, North Somerset recorded significant levels of employment growth over the period 1991-2013. In total, employment increased by 30%, resulting in approximately 17,900 additional FTE jobs between 1991 and 2013.

Figure 6-3 North Somerset FTE employment 1991-2013



Source: Oxford Economics

6.50. Key growth sectors over that period included Administrative and support service activities; Accommodation and food service activities; Human health and social work activities; and Professional, scientific and technical activities. The greatest decline was recorded in Agriculture; Construction; and Other service activities (**Table 6-22**).

Table 6-22 North Somerset FTE employment 1991-2013 – selected sectors

Sector	Change 1991-2013	% change 1991-2013
Administrative and support service activities	+4,130	+167%
Accommodation and food service activities	+3,450	+166%
Human health and social work activities	+3,310	+44%
Professional, scientific and technical activities	+3,260	+112%
Wholesale and retail trade; repair of motor vehicles and motorcycles	+2,500	+26%
Agriculture, forestry and fishing	-1,040	-57%
Construction	-1,230	-20%
Other service activities	-1,250	-38%
All sectors	**+17,900**	**+30%**

Source: Oxford Economics

6.51. The projection of these historical trends to 2036 suggests significant further growth in B1a/b employment, growth in B8 employment, and decline in B1c/B2 employment (**Table 6-23**).

Table 6-23 North Somerset trend-based employment projections (FTEs) – B-use class sectors – Scenario 3

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	25,400	34,400	+9,000	+35%
B1c/B2	5,600	4,800	-800	-14%
B8	11,200	12,500	+1,300	+12%
Total B use class	**42,200**	**51,700**	**+9,500**	**+23%**

Source: Oxford Economics, Atkins

6.52. Under Scenario 4, B1a/b floorspace demand is projected to increase by approximately 130,000 square metres over the period 2016-2036, and demand for B8 floorspace by 92,000 square metres. Demand for B1c/B2 floorspace is projected to decrease by 36,000 square metres (**Table 6-24**).

Table 6-24 North Somerset B-use class floorspace need (square metres) – Scenario 3

Use class	2016	2036	Change 2016-2036
B1a/b	365,000	495,000	+130,000
B1c/B2	237,000	201,000	-36,000
B8	784,000	876,000	+92,000
Total B use class	**1,386,000**	**1,572,000**	**+186,000**

Source: Oxford Economics, Atkins

6.53. The above floorspace requirements translate into an indicative need for 32 hectares of additional B1a/b land over the period 2016-2036, as well as 18 hectares of B8. B1c/B2 land requirements are projected to decline by 9 hectares (**Table 6-25**).

Table 6-25 North Somerset B-use class land need (hectares) – Scenario 3

Use class	2016	2036	Change 2016-2036
B1a/b	91	124	+32
B1c/B2	59	50	-9
B8	157	175	+18
Total B use class	**307**	**349**	**+42**

Source: Oxford Economics, Atkins

South Gloucestershire

South Gloucestershire Scenario 1 – Oxford Economics medium-high projections

6.54. According to Oxford Economics' medium-high scenario, FTE jobs in South Gloucestershire will increase by 25,850 between 2016 and 2036, representing growth of 18%. The main growth sectors are projected to include Professional, scientific and technical services; Administrative and support service activities; and Health and social work activities. The only sector projected to decline significantly is Manufacturing (**Table 6-26).**

Table 6-26 Oxford Economics South Gloucestershire medium-high employment forecasts (FTEs) – selected sectors

Sector	Change 2016-2036	% change 2016-2036
Information and communication	1,850	24%
Professional, scientific and technical activities	5,840	50%
Administrative and support service activities	4,640	36%
Real estate activities	830	41%
Education	410	4%
Accommodation and food service activities	1,550	19%
Manufacturing	-1,830	-12%
Human health and social work activities	3,140	22%
All sectors	**25,850**	**18%**

Source: Oxford Economics

6.55. The number of FTEs in B use class sectors is forecast to increase by approximately 15,800 between 2016 and 2036, an increase of approximately 19%. Employment in B1a/b sectors is forecast to increase by 14,500 FTE jobs (+27%). B8 employment is also forecast to grow (+15%), while B1c/B2 employment is projected to decline by 9% (**Table 6-27**).

Table 6-27 Oxford Economics South Gloucestershire medium-high employment forecasts (FTEs) – B-use class sectors

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	54,100	68,600	14,500	27%
B1c/B2	13,800	12,600	-1,200	-9%
B8	16,200	18,700	2,500	15%
Total B use class	**84,100**	**99,900**	**15,800**	**19%**

Source: Oxford Economics, Atkins

6.56. Based on the above employment forecasts, South Glos' floorspace and land requirements over the period 2016-2036 are summarised in

6.57. **Table 6-28** and **Table 6-29** below.

6.58. **Table 6-28 South Gloucestershire B-use class floorspace need (square metres) – Scenario 1**

Use class	2016	2036	Change 2016-2036
B1a/b	779,000	988,000	209,000
B1c/B2	578,000	531,000	-47,000
B8	1,136,000	1,311,000	175,000
Total B use class	**2,493,000**	**2,830,000**	**337,000**

Source: Oxford Economics, Atkins

Table 6-29 South Gloucestershire B-use class land need (hectares) – Scenario 1

Use class	2016	2036	Change 2016-2036
B1a/b	195	247	52
B1c/B2	145	133	-12
B8	227	262	35
Total B use class	**566**	**642**	**75**

Source: Oxford Economics, Atkins

6.59. According to Scenario 1, South Gloucestershire will need approximately 52 hectares of additional B1a/b land between 2016 and 2036, and an additional 35 hectares of B8 land. B1c/B2 land requirements are projected to decline by 12 hectares.

South Gloucestershire Scenario 2 – Oxford Economics high growth projections

6.60. According to Oxford Economics' high-growth scenario, full time equivalent employment (FTE) across all sectors in South Gloucestershire will increase by 24% between 2016 and 2036, an increase of approximately 35,100 FTE jobs.

6.61. The number of FTE jobs in B use class sectors is forecast to increase by 27% between 2016 and 2036. Most of the employment growth is projected to come from B1a/b sectors (+18,700 FTE jobs). Employment in B1c/B2 and B8 sectors is projected to increase by 4% and 22% respectively (**Table 6-38**).

Table 6-30 Oxford Economics South Gloucestershire high growth employment forecasts (FTEs)

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	54,300	73,000	18,700	34%
B1c/B2	13,800	14,300	500	4%
B8	16,200	19,700	3,500	22%
Total B use class	**84,300**	**107,000**	**22,700**	**27%**
All sectors	143,700	178,800	35,100	24%

Source: Oxford Economics, Atkins

6.62. Based on the above employment forecasts, South Gloucestershire's floorspace and land requirements over the period 2016-2036 are summarised in **Table 6-40** and **Table 6-41** below.

Table 6-31 South Gloucestershire B-use class floorspace need (square metres) – Scenario 2

Use class	2016	2036	Change 2016-2036
B1a/b	782,000	1,052,000	270,000
B1c/B2	579,000	600,000	21,000
B8	1,137,000	1,381,000	244,000
Total B use class	**2,498,000**	**3,033,000**	**535,000**

Source: Oxford Economics, Atkins

Table 6-32 South Gloucestershire B-use class land need (hectares) – Scenario 2

Use class	2016	2036	Change 2016-2036
B1a/b	195	263	67
B1c/B2	145	150	5
B8	227	276	49
Total B use class	**567**	**689**	**122**

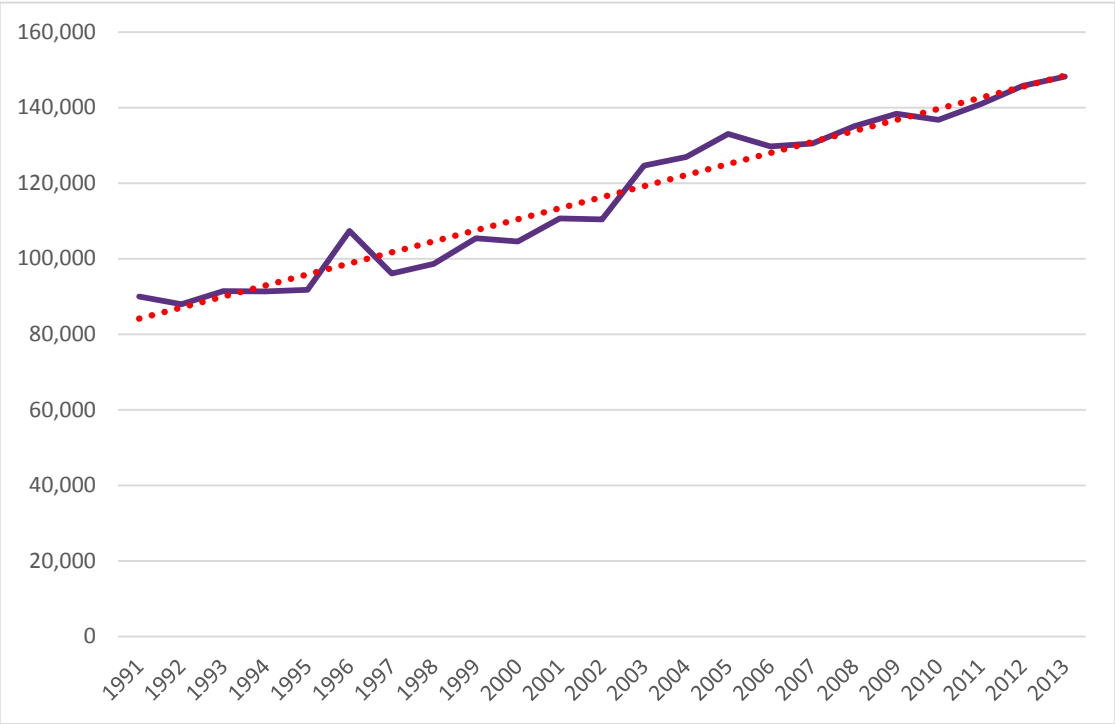
Source: Oxford Economics, Atkins

6.63. According to Scenario 2, South Gloucestershire will need approximately 67 hectares of additional B1a/b land between 2016 and 2036, as well as 5 hectares of B1c/B2 land and 49 hectares of B8 land. In total, under the high-growth scenario, South Glos is projected to need approximately 122 hectares of additional employment land by 2036.

South Gloucestershire Scenario 3 – Trend-based projections

6.64. As Figure 6-4 illustrates, South Gloucestershire recorded rapid levels of employment growth over the period 1991-2013. In total, FTE jobs increased by 65%, resulting in approximately 58,200 additional FTE jobs between 1991 and 2013.

Figure 6-4 South Gloucestershire FTE employment 1991-2013



Source: Oxford Economics

6.65. The Professional, scientific and technical activities sector recorded extraordinary levels of growth between 1991 and 2013, with the number of FTE jobs in the sector increasing fivefold (+511%). Other key growth sectors included Administrative and support service activities; Human health and social work activities; Wholesale and retail trade; and Information and communication. The most notable decline was recorded in the Manufacturing; Electricity, gas, steam and air conditioning supply; and Agriculture, forestry and fishing sectors (Table 6-33).

Table 6-33 South Gloucestershire FTE employment 1991-2013 – selected sectors

Sector	Change 1991-2013	% change 1991-2013
Professional, scientific and technical activities	+13,660	+511%
Administrative and support service activities	+11,550	+232%
Human health and social work activities	+8,460	+176%
Wholesale and retail trade; repair of motor vehicles and motorcycles	+6,880	+50%
Information and communication	+6,010	+196%
Agriculture, forestry and fishing	-660	-48%
Electricity, gas, steam and air conditioning supply	-970	-64%
Manufacturing	-7,580	-32%
All sectors	**+58,200**	**+65%**

Source: Oxford Economics

6.66. The projection of these historical trends to 2036 suggests significant further growth in B1a/b employment, growth in B8 employment, and decline in B1c/B2 employment (**Table 6-34**).

Table 6-34 South Gloucestershire trend-based employment projections (FTEs) – B-use class sectors – Scenario 3

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	63,800	101,000	37,200	58%
B1c/B2	12,300	7,700	-4,600	-37%
B8	18,300	22,200	3,900	21%
Total B use class	**94,400**	**130,900**	**36,500**	**39%**

Source: Oxford Economics, Atkins

6.67. Under Scenario 4, B1a/b floorspace demand is projected to increase by approximately 535,000 square metres over the period 2016-2036, and demand for B8 floorspace by 271,000 square metres. Demand for B1c/B2 floorspace is projected to decrease by -193,000 square metres (**Table 6-35**).

Table 6-35 South Gloucestershire B-use class floorspace need (square metres) – Scenario 3

Use class	2016	2036	Change 2016-2036
B1a/b	919,000	1,454,000	535,000
B1c/B2	518,000	325,000	-193,000
B8	1,282,000	1,553,000	271,000
Total B use class	2,719,000	3,332,000	613,000

Source: Oxford Economics, Atkins

6.68. The above floorspace requirements translate into an indicative need for 107 hectares of additional B1a/b land over the period 2016-2036, as well as 54 hectares of B8 land. Over the same period, B1c/B2 land requirements are projected to decline by 48 hectares (**Table 6-36**).

Table 6-36 South Gloucestershire B-use class land need (hectares) – Scenario 3

Use class	2016	2036	Change 2016-2036
B1a/b	184	291	107
B1c/B2	130	81	-48
B8	256	311	54
Total B use class	**570**	**683**	**113**

Source: Oxford Economics, Atkins

Functional Economic Market Area

FEMA Scenario 1 – Oxford Economics medium-high projections

6.69. According to Oxford Economics' medium-high scenario, FTE jobs across the FEMA will increase by 69,400 between 2016 and 2036, an increase of 13%. The main growth sectors are projected to include Professional, scientific and technical services; Administrative and support service activities; Real estate activities; Wholesale and retail trade; and Information and communication. The most notable declining sectors are Manufacturing (**Table 6-37**).

Table 6-37 Oxford Economics FEMA medium-high employment forecasts (FTEs) – selected sectors

Sector	Change 2016-2036	% change 2016-2036
Professional, scientific and technical activities	18,700	36%
Administrative and support service activities	11,000	23%
Real estate activities	3,500	31%
Wholesale and retail trade; repair of motor vehicles and motorcycles	5,700	8%
Information and communication	5,100	21%
Education	800	2%
Manufacturing	-4,100	-11%
All sectors	**69,400**	**13%**

Source: Oxford Economics

6.70. The number of FTEs in B use class sectors across the FEMA is forecast to increase by approximately 43,700 between 2016 and 2036, an increase of approximately 15%. Employment in B1a/b sectors is forecast to increase by 40,100 FTE jobs (+20%). B8 employment is also forecast to grow (+11%), while B1c/B2 employment is projected to decline by 3,100 FTE jobs (-8%).

Table 6-38 Oxford Economics FEMA medium-high employment forecasts (FTEs) – B-use class sectors

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	205,000	245,100	40,100	20%
B1c/B2	33,000	30,400	-2,600	-8%
B8	57,300	63,500	6,200	11%
Total B use class	**295,300**	**339,000**	**43,700**	**15%**

Source: Oxford Economics, Atkins

6.71. Based on the above employment forecasts, the FEMA's floorspace and land requirements over the period 2016-2036 are summarised in **Table 6-39** and **Table 6-40** below.

Table 6-39 FEMA B-use class floorspace need (square metres) – Scenario 1

Use class	2016	2036	Change 2016-2036
B1a/b	2,951,000	3,530,000	579,000
B1c/B2	1,384,000	1,276,000	-108,000
B8	4,008,000	4,442,000	434,000
Total B use class	**8,343,000**	**9,248,000**	**905,000**

Source: Oxford Economics, Atkins

Table 6-40 FEMA B-use class land need (hectares) – Scenario 1

Use class	2016	2036	Change 2016-2036
B1a/b	590	721	131
B1c/B2	346	319	-27
B8	802	889	87
Total B use class	**1,738**	**1,929**	**191**

Source: Oxford Economics, Atkins

6.72. According to Scenario 1, the FEMA will need approximately 131 hectares of additional B1a/b land between 2016 and 2036, and an additional 87 hectares of B8 land. B1c/B2 land requirements are projected to decline by 27 hectares.

FEMA Scenario 2 – Oxford Economics high growth projections

6.73. According to Oxford Economics' high-growth scenario, full time equivalent employment (FTE) across all sectors in the FEMA will increase by 18% between 2016 and 2036, an increase of approximately 100,100 FTE jobs.

6.74. The number of FTE jobs in B use class sectors is forecast to increase by 26% between 2016 and 2036. Most of the employment growth is projected to come from B1a/b sectors (+72,900 FTE jobs). Employment in B1c/B2 and B8 sectors is projected to increase by 1% and 12% respectively (**Table 6-41**).

Table 6-41 Oxford Economics FEMA high growth employment forecasts (FTEs)

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	215,500	288,400	+72,900	+34%
B1c/B2	33,000	33,200	+200	+1%
B8	57,900	64,600	+6,700	+12%
Total B use class	**306,400**	**386,200**	**+79,800**	**+26%**
All sectors	**545,800**	**645,900**	**+100,100**	**+18%**

Source: Oxford Economics, Atkins

6.75. Based on the above employment forecasts, the FEMA's floorspace and land requirements over the period 2016-2036 are summarised in Table 6-42 and Table 6-43 below.

Table 6-42 FEMA B-use class floorspace need (square metres) – Scenario 2

Use class	2016	2036	Change 2016-2036
B1a/b	3,103,400	3,868,400	765,000
B1c/B2	1,384,300	1,434,300	50,000
B8	4,056,000	4,712,000	656,000
Total B use class	**8,543,700**	**10,014,700**	**1,471,000**

Source: Oxford Economics, Atkins

Table 6-43 FEMA B-use class land need (hectares) – Scenario 2

Use class	2016	2036	Change 2016-2036
B1a/b	621	793.69	173
B1c/B2	346	357	11
B8	811	943	132
Total B use class	**1,778**	**2,094**	**316**

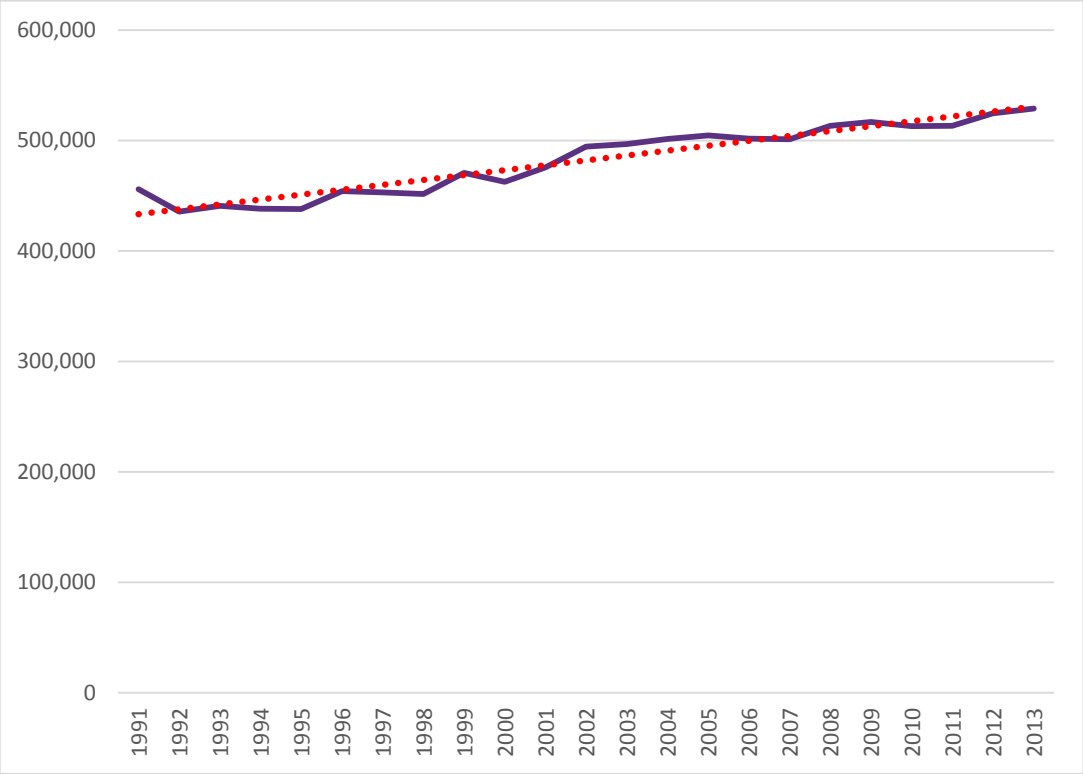
Source: Oxford Economics, Atkins

6.76. According to Scenario 2, the FEMA will need approximately 173 hectares of additional B1a/b land between 2016 and 2036, as well as 11 hectares of B1c/B2 land and 132 hectares of B8 land. In total, under the high-growth scenario, The FEMA is projected to need approximately 316 hectares of additional employment land by 2036.

FEMA Scenario 3 – Trend-based projections

6.77. As Figure 6-5 illustrates, despite a few fluctuations, the FEMA's employment levels increased steadily between 1991 and 2013. In total, FTE jobs increased by 16%, resulting in approximately 72,900 additional FTE jobs between 1991 and 2013.

Figure 6-5 FEMA FTE employment 1991-2013



Source: Oxford Economics

6.78. Key growth sectors across the FEMA for the period 1991-2013 included Professional, scientific and technical activities (+117%); Human health and social work activities (+55%); Administrative and support service activities (+54%); Education (+41%); and Information and communication (+46%). The most notable decline was recorded in the Manufacturing (-39%); Construction (-23%); and Electricity, gas, steam and air conditioning supply (-84%) sectors (**Table 6-44**).

Table 6-44 FEMA FTE employment 1991-2013 – selected sectors

Sector	Change 1991-2013	% change 1991-2013
Professional, scientific and technical activities	+28,000	+117%
Human health and social work activities	+24,000	+55%
Administrative and support service activities	+16,900	+54%
Education	+13,300	+41%
Information and communication	+8,200	+46%
Electricity, gas, steam and air conditioning supply	-5,300	-84%
Construction	-9,000	-23%
Manufacturing	-23,400	-39%
All sectors	**72,900**	**16%**

Source: Oxford Economics

6.79. The projection of these historical trends to 2036 suggests significant further growth in B1a/b employment, resulting in 60,800 additional B1a/b FTE jobs. B1c/B2 employment levels are projected to decline by a further 17,300 FTE jobs, while B8 FTE jobs are forecast to increase by 4,100 (**Table 6-45**).

Table 6-45 FEMA trend-based employment projections (FTEs) – B-use class sectors – Scenario 3

Use class	2016	2036	Change 2016-2036	% change 2016-2036
B1a/b	210,500	271,300	60,800	+29%
B1c/B2	28,800	11,500	-17,300	-60%
B8	59,100	63,200	4,100	+7%
Total B use class	**298,400**	**346,000**	**47,600**	**+16%**

Source: Oxford Economics, Atkins

6.80. Under Scenario 3, B1a/b floorspace demand across the FEMA is projected to increase by approximately 875,000 square metres over the period 2016-2036, and demand for B8 floorspace by 292,000 square metres. Demand for B1c/B2 floorspace is projected to decrease by -725,000 square metres (**Table 6-46**).

Table 6-46 FEMA B-use class floorspace need (square metres) – Scenario 3

Use class	2016	2036	Change 2016-2036
B1a/b	3,032,000	3,907,000	+875,000
B1c/B2	1,208,000	483,000	-725,000
B8	4,135,000	4,427,000	+292,000
Total B use class	**8,375,000**	**8,817,000**	**+442,000**

Source: Oxford Economics, Atkins

6.81. The above floorspace requirements translate into an indicative need for 184 hectares of additional B1a/b land over the period 2016-2036, as well as 63 hectares of B8 land. Over the same period, B1c/B2 land requirements are projected to decline by 153 hectares (**Table 6-47**).

Table 6-47 FEMA B-use class land need (hectares) – Scenario 3

Use class	2016	2036	Change 2016-2036
B1a/b	624	808	+184
B1c/B2	302	149	-153
B8	827	890	+63
Total B use class	**1,753**	**1,847**	**+94**

Source: Oxford Economics, Atkins

Alternative Land Forecasting Evidence- AMION Model

6.82. A further alternative source of information that can be assessed for comparison with the Oxford Economics (OE) data is called the 'AMION model' was. In 2013 AMION Consulting and Thomas Lister Surveyors, were appointed by the WoE UAs to prepare a model of business rate growth and economic and employment impact across the Temple Quarter EZ and five EAs. This was produced to support a submission to Central Government for the WoE City Deal.

6.83. The AMION model is based on a 'bottom-up' assessment of employment growth and site specific development. It makes and estimation of which sites will be developed in the EZ and EAs in the period 2013 to 2038 using a combination of employment density assumptions and consultation responses.

6.84. In total the AMION model estimates that under the best case scenario (intervention case) by 2036 there will be an additional 1,646,681 m^2 of employment floorspace and 51,294 new mainly B use employees in the EZ and five EAs. Employment by EZ and EA and percentage of total is shown below:

- Bristol Temple Quarter EZ - 11,710 (23%)
- Avonmouth/Severnside EA – 13,217(26%)
- Filton EA – 10,006 (20%)
- Emersons Green EA – 3,574 (7%)
- Junction 21 EA – 5,351 (10%)
- Bath Riverside EA – 7,437 (14%)

6.85. In comparison the OE forecasts high scenario suggest 1,521,000 m^2 and around 100,000 total employees (Table 6-50) across the entire FEMA not just the EZ and five EAs.

6.86. The key conclusion to draw from the AMION model is that it demonstrates a slightly more positive picture of employment floorspace growth than the Oxford Economics forecast which is performed in a larger area as it includes the whole FEMA and not just the EZ and five EAs. The main reason for this difference is that the AMION model assumes relatively more industrial employment than the OE forecasts and industrial employment requires a greater amount of floorspace per employee. This is an important piece of 'bottom up' market intelligence that can be used to verify OE forecasts to assess whether they represent a realistic picture of future demand in the WoE area.

'Bottom up' Analysis

6.87. Assessing 'bottom up' evidence as well as 'top down' evidence (e.g. employment forecasts) helps to provide a balanced picture of future demand. The key pieces of 'bottom up' evidence analysed include the following:

- EDNA consultation responses
- Evidence of commercial developer enquiries
- Local inward investment and economic development policy
- Evidence of industrial demand at the EZ and five EAS from the AMION model

Consultation Responses

6.88. A range of stakeholders who work close to the market on a 'day to day' basis were consulted. These included market agents, business space operators, landowners, developers, inward investment promoters and spatial planners. Their views were sought on the expected makeup and quantum of likely future demand for employment space in the WoE. The key findings of the exercise are described in Chapter 3.

6.89. In summary most consultees felt that manufacturing and logistics in the WoE are likely to remain strong sectors. Historic declines linked to the long term trend of de-industrialisation and the recent economic downturn are likely to have reached a peak and current levels of supply are seen as remaining stable into the future. It was also felt that there are opportunities for future growth. This view is driven by a perception of the WoE's having a strong clustering of existing businesses and a comparative advantage in sectors such as high-tech manufacturing and creative industry which is likely to increase in significance in the future. Also, according to this market intelligence the logistics sector is likely to remain strong as the WoE's due to the Bristol city region's importance strategic location on the M5/M4 and forming a gateway to Wales and the South West.

Evidence of commercial developer enquiries

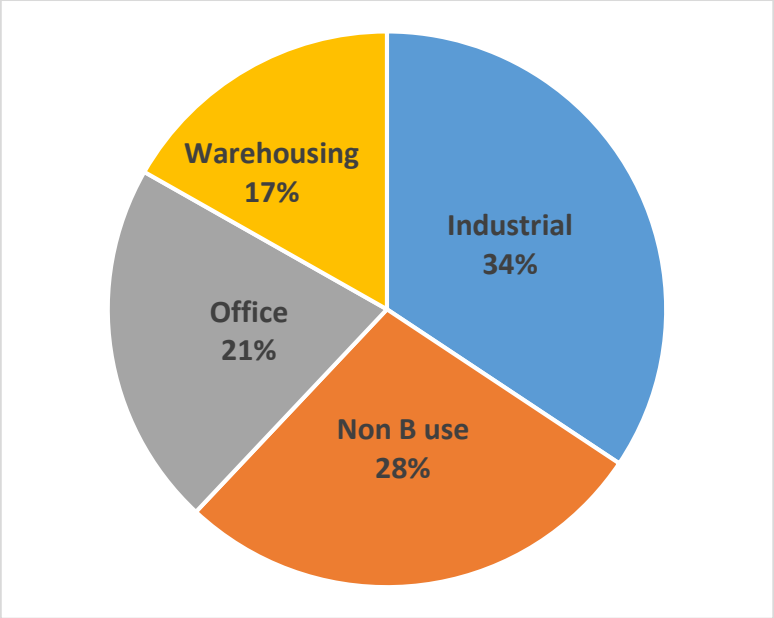
6.90. Invest Bristol and Bath (IBB) is an organisation linked to the WoE LEP that promotes inward investment to the Bristol city region. Since Jan 2013 they have received 1,740 enquiries from potential business operators with recorded/specified property requirements. The breakdown of these inquiries are as follows:

Table 6-48 Invest Bristol and Bath Business Property Enquiries 2013-2015

Sector	No. Enquiries	%	Typical Premises
Consumer and leisure	245	18.8%	Non B-use
Retail and logistics	188	14.4%	B8
Creative industries	182	14.0%	B1/B2
Business services	152	11.7%	B1
Auto Engineering	121	9.3%	B2
Construction	91	7.0%	Non B use/B2/B8
Info Technology	75	5.8%	B1/B2
Pharmaceuticals	48	3.7%	B2
Education	33	2.5%	Non B-use
Financial	31	2.4%	B1
Low Carbon	30	2.3%	B2
Agri-food	29	2.2%	B2
Transport	25	1.9%	Non B-use/B2
Energy	23	1.8%	B2
Automotive	15	1.2%	B2
Environment	9	0.7%	B2
Security	3	0.2%	Non B-use/B1
Biotech	2	0.2%	B1/B2
Total	**1,302**		

Source: IBB 2013 – 2015. Note 438 enquiries did not specify a sector.

Figure 6-7 Invest Bristol and Bath Business Property Enquiries 2013-2015



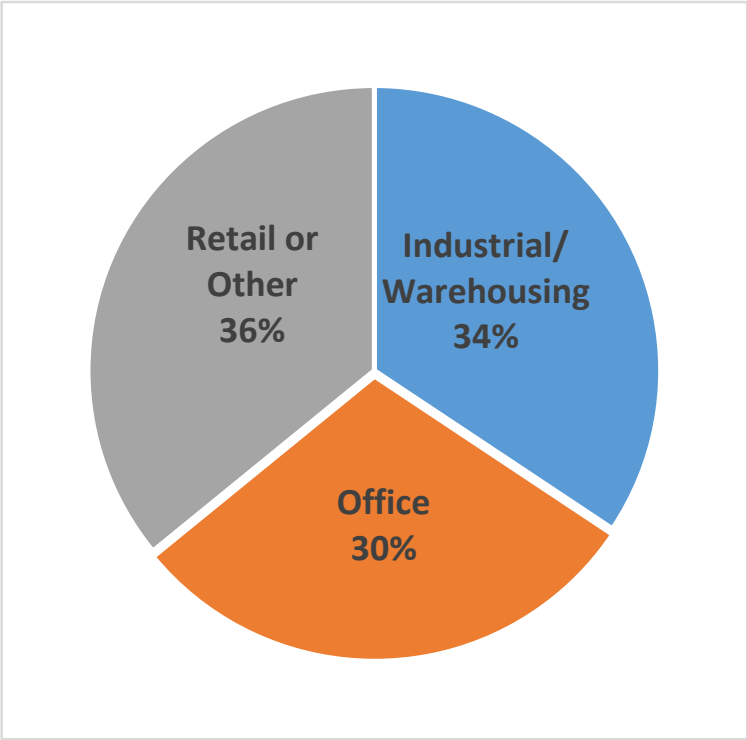
Source: IBB 2013 – 2015.

Table 6-49 Invest Bristol and Bath Business Property Enquiries 2013-2015

Specific Accommodation Sought	No. Enquiries	%
Industrial / Warehousing	598	34%
Office	517	30%
Retail or Other	625	36%
Total	**1,740**	

Source: IBB 2013 – 2015.

Figure 6-8 Invest Bristol and Bath Business Property Enquiries 2013-2015



Source: IBB 2013 – 2015.

6.91. Analysis of enquiries from potential business occupiers in the WoE (see **Table 6-48** and **6-49** and **Figure 6-7** and **6-8** above) shows that demand for industrial and warehousing accommodation is very strong and actually higher in quantitative terms than office demand. While this represents the present and near future time horizon it is still indicative of stronger industrial and warehousing demand than the OE forecast suggests.

Bottom up analysis - AMION model

6.92. As described above, the AMION model is a 'bottom up' assessment of potential employment floorspace and employees at the EZ and five EAs. It was used as the evidence to support a funding bid for the Bristol 'City Deal'. It is based on consultation with land owners and developers and Local Authorities. It suggests that a significant amount of the developable land at these sites could be provided for a range of office, industrial and warehousing uses. While caution must be applied in using the AMION model directly to employment land spatial policy, as it is not in itself a forecast of future employment, it does provide 'bottom-up' evidence of strong industrial and warehousing demand which supports the 2015 OE forecasts.

Local Policy initiatives

6.93. There are a range of proactive initiatives to stimulate demand and boost economic development in the high-tech manufacturing, bio-technology, low carbon and automotive sectors across the WoE. A selection of some the relevant policies include the following:

- Bristol City Region City Deal – including £1billion fund over 25 years to deliver economic development in sectors such as high tech manufacturing via infrastructure improvements
- Bristol City Region People and Skills Programme – providing around £114million of funding for schemes including training and equipping the local workforce with the skills for industrial growth sectors.
- £30m invested in the Filton EA to target science-based and high technology jobs.

6.94. It is reasonable to assume that many of the proactive policy initiatives designed to stimulate industrial growth will be successful and this could stop the long term decline of industrial employment. This generally supports the evidence provided in the OE forecasts.

Summary of 'Bottom up' evidence

6.95. The 'bottom up' evidence described above largely supports the conclusions of the 2015 OE forecasts. This suggests that future demand for employment space in the WoE is likely to be relatively evenly spread between industrial and office based sectors.

Demand Conclusion

6.96. The demand assessment assessed three different scenarios of potential employment growth and translated these scenarios into demand for employment floorspace and land using standard employment densities and plot ratios. The assessment covered the period 2016 to 2036 and was primarily concerned with B use employment although all employment was also considered.

6.97. Two of the scenarios are based on macro-economic employment forecasts provided by Oxford Economics (OE). These employment forecasts were produced in 2015 and update those initially produced in 2013 to support the WoE Strategic Economic Plan[39] and were used in the Wider Bristol and Bath SHMAs. The third scenario assessed was based on past employment floorspace take up rates applied forward to 2036. The 2013 AMION model, which provided a 'bottom-up' assessment of employment and floorspace at the EZ and five EAs was also assessed for comparison.

6.98. Finally, an assessment of 'bottom up' evidence was performed. This helped to verify the 'top down' evidence contained in the OE forecasts. This included stakeholder consultation responses, business occupier enquiries, local economic development policy initiatives and the AMION

[39] Note that UA level employment forecast were not produced to support the WoE SEP but have been disaggregated for this EDNA study to help guide spatial planning policy.

demand model. It effectively validated the ‘top down’ evidence which justifies using the OE employment forecasts as the basis of the spatial conclusions in chapter 7 and 8 below.

6.99. The key findings were that under the Medium-High (Scenario 1) and High (Scenario 2) demand for between 905,000 m m^2 (191ha) and 1,471,000 m^2 (316ha) respectively. Scenario 3 (Past trend) suggested modest growth of 442,000 m^2 or 94 ha. Office demand accounts from around 64% to 52% of this demand for Scenario 1 and 2 respectively. Scenarios 1 and 2 are taken forward and analysed against available supply in the next chapter.

7. Supply / Demand Balance

Introduction

7.1. This section contrasts the projected demand for employment land across the WoE FEMA (2016 to 2036) as discussed in Chapter 6, with the supply of developable land as discussed in Chapter 5. The data is disaggregated by UA and business use type (office, industry and warehousing). It is not possible to accurately disaggregate the supply or demand data by FEMA sub-area. This is because both the supply and demand data is not published at that level and because the boundaries of the FEMA sub-areas are not strictly defined. The matching of supply and demand specific to the FEMA sub-areas is considered in a qualitative as opposed to a quantitative way. This is captured in the final conclusions in the following chapter.

7.2. The objective of the supply/demand balancing exercise is to assess whether there is sufficient land in the WoE FEMA to meet future business and economic development needs and to identify any potential gaps that could be addressed through spatial planning policy (see Chapter 8).

7.3. The current supply of available floorspace is factored into the assessment after it is netted off against the optimum frictional vacancy rate (assumed to be 10%). This is because vacant, available employment floorspace could help to meet some of the identified needs.

Supply Demand Balance

7.4. Tables 7-1 and 7-2 below set out the relationship between the estimated demand and supply of employment floorspace in the WoE FEMA by type of floorspace. The demand figures are shown in floorspace (m^2) to allow comparison with the available supply figures[40]. These are later converted to land using standard plot ratio assumptions.

7.5. The supply side shows the floorspace that could be available to accommodate future demand. Floorspace available to meet future demand is made up of the developable employment space from Table 5-9 and Table 5-11 (i.e. 265,160 m^2 + 2,782,046 m^2 = 3,047,206 m^2) and the current available vacant space (1,811,515 m^2 from Table 5-3) after factoring in the need to retain 10% vacancy buffer in the future to allow the market to churn and operate effectively (frictional vacancy). The reason the two figures are different is that under the high demand scenario a greater quantum of 'frictional vacancy' will be required and so less space will be available to meet demand[41].

7.6. This supply demand balancing exercise is performed for the Medium High and High Scenarios adjusted by the bottom up scenario respectively. The figures are estimated by subtracting the total demand projected from the total available supply.

[40] As discussed in Chapter 7 above only the Medium-High and High Scenario are shown as the Past Trends Scenario 3 can be considered to present a more pessimistic picture of future employment growth as it does not factor in proactive policy initiatives and is significantly influenced by the recent economic downturn.

[41] The 10% frictional rate is calculated on the gross demand for employment space to 2036. Gross demand is total current supply 14,976,236sqm (Table 5-1) + the forecasts demand for each of the scenarios i.e. for Med-High: 14,976,236 + 905,000 sq m (Table 7-1) = 15,881,236sq m and for High: 14,976,236 + 1,471,000 (Table 7-2) = 16,447,724 sq m. 10% of each of these is 1,588,124 sq m and 1,644,724 sq m respectively. These figures of future frictional vacancy are then subtracted from existing available space (1,811,515 sq m Table 5-3) leaving 166,791 sq m (high) and 223,391 sq m (medium-high) respectively. This is the space that could meet future demand while at the same time allowing a 10% vacancy buffer to exist. These frictional rates are then added to the available developable space (3,047,206 sq m which is made up from 2,782,046 sq m (Table 5-12) + 265,160 sq m (Table 5-9)) to give 3,270,597 sq m and 3,213,997 sq m for the medium-high and high respectively.

Table 7-1 Demand-Supply Balance (2016 – 2036) – Medium High Scenario (m^2)

	Office (B1a/b)	Industrial (B1c/B2)	Warehousing (B8)	Total
BANES				
Supply	75,353	4,404	16,588	96,345
Demand	59,000	- 11,000	14,000	62,000
Balance	**16,353**	**15,404**	**2,588**	**34,345**
Bristol				
Supply	277,108	100,876	- 93,878	284,105
Demand	207,000	- 33,000	150,000	324,000
Balance	**70,108**	**133,876**	**- 243,878**	**- 39,895**
N. Somerset				
Supply	159,096	130,210	- 26,337	262,968
Demand	104,000	- 17,000	95,000	182,000
Balance	**55,096**	**147,210**	**- 121,337**	**80,968**
S. Glos				
Supply	256,577	,212,571	1,158,031	2,627,179
Demand	209,000	- 47,000	175,000	337,000
Balance	**47,577**	**1,259,571**	**983,031**	**2,290,179**
Balance Total (FEMA)	**189,134**	**1,556,060**	**620,404**	**2,365,597**

Source: Atkins Figures in the Table have been rounded.

Table 7-2 Demand-Supply Balance (2016 – 2036) – High Scenario (m^2)

	Office (B1a/b)	Industrial (B1c/B2)	Warehousing (B8)	Total
BANES				
Supply	73,353	2,704	14,188	90,245
Demand	79,000	6,000	38,000	123,000
Balance	**- 5,647**	**- 3,296**	**- 23,812**	**- 32,755**
Bristol				
Supply	269,208	96,676	- 102,778	263,105
Demand	286,000	9,000	239,000	534,000
Balance	**- 16,792**	**87,676**	**- 341,778**	**- 270,895**
N. Somerset				
Supply	156,496	127,110	- 30,337	253,268
Demand	130,000	14,000	135,000	279,000
Balance	**26,496**	**113,110**	**- 165,337**	**- 25,732**
S. Glos				
Supply	250,477	1,205,771	1,151,131	2,607,379
Demand	270,000	21,000	244,000	535,000
Balance	**- 19,523**	**1,184,771**	**907,131**	**2,072,379**
Balance Total (FEMA)	**- 15,466**	**1,382,260**	**376,204**	**1,742,997**

Source: Atkins Figures in the Table have been rounded.

7.7. Table 7-3 and 7-4 below show the supply demand balance of Tables 7-1 and 7-2 in terms of land (hectares). The floorspace figures are converted to land using plot ratios 40% for industry and 50% for office and warehousing, apart from North Somerset and South Glos where a plot ratio of 40% is used for office. Office space in Bristol and BANES is left as floorspace as much of the supply is in Bristol or Bath City Centres which is multi-storey and so not appropriate to display as land.

Table 7-3 Demand-Supply Balance (2016 – 2036) – Medium-High Scenario (Ha*)

UA	Office (B1a/b)	Industrial (B1c/B2)	Warehousing (B8)	Total
BANES	16,353*	3.9	0.5	4*
Bristol	70,108*	-	-	0*
N. Somerset	13.8	12.5	-	26
S. Glos.	11.9	314.9	181.3	508
Total (FEMA)	**26***	**331**	**182**	**539**

Source: Atkins Figures in the Table have been rounded. * Supply in Bristol and BANES is shown in m^2 and not factored into the totals as it is not appropriate to convert to land as office accommodation will be provided in as yet defined multi-storey buildings.

Table 7-4 Demand-Supply Balance (2016 – 2036) – High Scenario (Ha*)

UA	Office (B1a/b)	Industrial (B1c/B2)	Warehousing (B8)	Total
BANES	-5,647*	-	-4.8	-5*
Bristol	-16,792*	-	- 0.4	0*
N. Somerset	6.6	-	0.2	7
S. Glos.	-	290.5	130.4	421
Total (FEMA)	**7***	**290**	**125**	**423**

Source: Atkins Figures in the Table have been rounded. * Supply in Bristol and BANES is shown in m^2 and not factored into the totals as it is not appropriate to convert to land as office accommodation will be provided in as yet defined multi-storey buildings.

7.8. It is important to note that the identified supply of land in Tables 7-1 to 7-4 should not be relied upon as a guaranteed source of land supply for B-class development in the short-term, as some sites may represent medium-term opportunities if they require land assembly assistance etc. Also developers are likely to bring forward sites with a different quantum and types of B-class development. Further detailed site analysis (relating to land ownership, site aspirations etc.) would be required to identify the likely time-scale of the vacant/underutilised land coming forward. The purpose of this analysis is to provide a representative overview of future supply and demand for employment space to assist the development of strategic spatial planning policies.

Supply Demand Balance Conclusion

7.9. According to the analysis of this section there is a total surplus of approximately 2.4m m^2 to 1.7m m^2 of employment floorspace across the WoE FEMA. Converting this to land equates to 539 ha to 423 ha of land under the Medium-High and High Scenarios respectively. The key areas of 'over-supply' include industrial and warehousing in South Glos and industrial land in Bristol. This relates mainly to the large amount of land at Avonmouth/Severnside. However, there is a relative undersupply of warehousing land in Bristol and North Somerset.

7.10. The analysis in this Chapter suggests that many areas of the WoE FEMA have a relative balance between supply and demand for employment uses. Those areas in Table 7-3 and 7-4 that show a single figure can be considered to be in relative equilibrium, with future supply meeting future demand. However, as discussed above there are also several areas where there is an 'over-supply' or 'under-supply' of land to meet economic development needs. The next section (Chapter 8) will explore and draw conclusions on potential solutions to address the FEMA sub-areas where there is a relative imbalance between supply and demand.

8. Conclusions

Introduction

8.1. This section sets out key findings and conclusions based on the analysis explored throughout the study. These evidence based conclusions will help to inform future spatial planning decisions and the evolving West of England Joint Spatial Plan (JSP). It could also support policy related to the WoE Enterprise Zone and Five Enterprise Areas and other economic development initiatives across the WoE.

West of England Socio-Economic Profile

8.2. The EDNA study assessed existing policy, evidence base and area's socio-economic profile. It concluded that WoE is a relatively vibrant economic area within the UK. It has good potential for future economic growth. This growth potential is recognised in policy aspirations of the WoE as embodied in the WELEP Strategic Economic Plan and the spatial policies of the four UA's Core Strategies. However, it also found that there are pockets of significant deprivation, particularly in parts of South and North Central Bristol and Weston-super-Mare. This deprivation creates an impetus for spatial polices that seek to generate additional employment and economic development opportunities.

8.3. The WoE area has an established concentration of high growth and innovative sectors such as high tech manufacturing and those linked to the knowledge economy. For example 6 of the 10 top WoE companies are in the Professional, Scientific and Business Services sectors and the WELEP area is in the top 25% of LEP areas in terms of patents registered. The WoE has a large population of highly educated people. These positive elements if harnessed effectively should allow the WoE to grow its economy over the next twenty years or so.

8.4. However, there are some spatial and socio-economic issues that that should be addressed if the WoE's potential is to be fully realised. The key issues to be addressed include the following:

- Avonmouth/Severnside - Significant infrastructure constraints estimated to cost around £110 million need to be addressed if development is to be unlocked and the full economic potential of the area is to be realised.

- South Bristol and Fringe – South Bristol and Fringe is a relatively deprived area within the WoE context and has a relative dearth of employment space, despite being well located near the Bristol urban area and close to Bristol Airport. This situation represents a degree of market failure. To address this issue there is potential to stimulate demand through investment in key infrastructure and planning policy support for additional employment land provision. The nature of any future employment land provision will be addressed in the forthcoming West of England Joint Spatial Plan.

- Education and Skills – The WoE FEMA has a relative issue of low educational and skills attainment. Based on the 2013 GCSE and A Level results Bristol City education authority was in the bottom 6% nationally (141 out of 151) and consultees reported a relative issue of skills shortage for manufacturing, transport and construction sectors particularly. This skills gap could hinder the growth potential of the WoE if not addressed as some employers may seek to locate in other areas with better availability of skilled workers.

Functional Economic Market Area (FEMA)

8.5. The relevant FEMA for the WoE was assessed based on a combination of analysis of travel to work patterns (TTWA), supply chain linkages, transport networks, retail catchments and existing administrative and policy areas. On balance the relevant FEMA for the WoE was considered to include all four WoE UAs. Careful consideration was given to whether Bath should be considered a separate FEMA as it is its own Housing Market Area (HMA) and North Somerset/Weston based on the fact that it is a standalone TTWA.

8.6. However, based on the above analysis and consultation with stakeholders and market agents it was considered that Bath and North Somerset/Weston should be sub-areas within a wider WoE FEMA rather than stand-alone FEMAs. This is because the critical economic mass and key supply chain linkages in the WOE lies within the wider WoE/Bristol city region rather than a fragmented collection of smaller economic sub-markets. It was concluded that fragmenting the WoE into a series of smaller FEMAs could potentially hinder BANES's and North Somerset's economic development needs, as well as the WoE as a whole.

8.7. According to the Bristol City Region 'City Deal' published by the UK Government in 2012, the WoE is a single economic unit. This can be seen by the following quote:

> *'The rationale behind the four local authorities of Bristol, Bath & NE Somerset, South Gloucestershire and North Somerset working together, is firmly rooted in the **economic realities of the city region**. **The West of England geography is a functioning economic area**, boasting over 89% economic containment'*[42]

8.8. This view that the Bristol City region encompassing the wider WoE and four UAs complies to national policy guidance as expressed in the 2010 DCLG FEMA guidance which states the following:

> *'..key economic markets broadly correspond to sub-regions or **city regions** – known as functional economic market areas (FEMA)'*[43]

8.9. FEMA sub-areas were agreed by consultees to be; North/East Bristol Fringe; Avonmouth/Severnside; Bristol City Centre; Central Bath; South Bristol and Fringe and M5 Corridor/Weston.

Competitor Areas

8.10. Potential competition from competing areas within the UK could affect the economic potential in the WoE if initiatives and policy commitments to promote economic growth at a WoE level are not effective. The key comparative competing areas include Oxfordshire and the Northern Powerhouse. Currently the WoE benefits from being close to London and is often an alternative to London for growing businesses due to its good quality of life and relatively cheap and plentiful commercial accommodation. However, this comparative advantage could be relatively eroded if HS2 and the Northern Powerhouse is successful and the significant employment growth at Oxfordshire is successfully delivered.

8.11. Competition from these other UK areas alongside global competition provides a further impetus for the WoE to be proactive in encouraging economic growth in the area. It also provides further justification for avoiding the fragmentation of the wider WoE FEMA into smaller standalone FEMAs (i.e. three standalone FEMAs in the WOE for Bristol, Bath and North Somerset). This is because this will inevitably lead to matching of supply and demand at a more micro level which risks not addressing the strategic, cross boundary economic development needs of companies competing at the national and international level.

Employment Land Supply

8.12. The total stock of employment land in the WoE FEMA is around 15m $m^{2.}$ Vacancy rates are approximately 12% which is slightly higher than the optimum level. The quality of employment sites, as assessed in the field survey, is generally fit for purpose and appropriate for employment use. There is around 3.2m m^2 of available space to meet future demand once existing vacant space and the need to keep around 10% vacancy to allow market churn (i.e. frictional vacancy rate).

[42] WoE Bristol City Deal (2012) p5
[43] DCLG FEMA Guidance (2010) para 2

Meeting Future Economic Development Needs

8.13. The demand exercise presented three scenarios. Apart from the scenario of past employment land take up trends the scenarios are based on 'top down' employment forecasts. These were produced by Oxford Economics in 2015.

8.14. To inject some market realism to better reflect 'on the ground' conditions an assessment of 'bottom up' evidence was performed. This factored in the views of stakeholders and operators involved in the WoE commercial property market, analysis of business property enquiries, local economic development policy initiatives and the AMION employment land model. The key finding of this 'bottom up' demand exercise was that the 2015 OE forecasts represent a fair and reasonable reflection of projected demand. The 2015 OE forecasts therefore form the basis of the assessment of spatial requirements to meet economic development needs of the FEMA to 2036.

8.15. Under the Medium-High and High Scenarios it is estimated that there is demand for between 905,000 m^2 and 1,471,000 m^2 of employment space in the WoE over the planning period (2016 to 2036). When available supply is matched to this projected demand (adjusted through the 'bottom-up' process) by UA and business use type, it shows that although supply largely matches demand in some areas, there is a relative imbalance in certain other areas.

8.16. In total there is sufficient land in the WoE to meet demand. In fact there is a relative oversupply in the medium-high scenario of 539 ha and 423 ha in the High Scenario. This large apparent oversupply largely relates to the significant amount of land at Avonmouth/Severnside. The areas of relative imbalance are shown in Table 8-1 and 8-2 below. Those cells that are red are considered to have a relative over-supply of land to meet demand, those in blue have a relative under-supply and those in green are considered to be in relative balance.

Table 8-1 Demand-Supply Balance (2016 – 2036) – Medium-High Scenario (Ha*)

UA	Office (B1a/b)	Industrial (B1c/B2)	Warehousing (B8)	Total
BANES	16,353*	4	1	4*
Bristol	70,108*	33	-49	-15*
N. Somerset	14	37	-24	26
S. Glos.	12	315	197	523
Total (FEMA)	**26***	**389**	**124**	**539**

Source: Atkins Figures in the Table have been rounded. * Supply in Bristol and BANES is shown in m^2 and not factored into the totals as it is not appropriate to convert to land as office accommodation will be provided in as yet defined multi-storey buildings.

Table 8-2 Demand-Supply Balance (2016 – 2036) – High Scenario (Ha*)

UA	Office (B1a/b)	Industrial (B1c/B2)	Warehousing (B8)	Total
BANES	-5,647*	- 1	- 5	-6*
Bristol	- 16,792*	22	- 68	-46*
N. Somerset	7	28	- 33	2
S. Glos.	- 4.8	296	181	473
Total (FEMA)	**2***	**346**	**75**	**423**

Source: Atkins Figures in the Table have been rounded. * Supply in Bristol and BANES is shown in m^2 and not factored into the totals as it is not appropriate to convert to land as office accommodation will be provided in as yet defined multi-storey buildings.

8.17. The cells in Table 8-1 and 8-2 that have a single figure are considered to have a relative balance between available supply and future demand. This because the sensitivities and uncertainties over future projections mean that it is reasonable to consider that surpluses under 10 hectares are not significant, whereas when there are deficits of employment land to meet demand of anything over -5 hectares this is considered significant. This is because a lack of employment land to meet demand is more serious than an oversupply as this could hinder the economic potential of the area.

8.18. The indicative oversupply of office floorspace in Bristol and BANES, under the medium-high scenario, is not considered to be significant as according to officers consulted this is likely to be offset by a loss of outdated office stock through permitted development right prior approvals[44]. Following the same logic, the small indicative undersupply of office space in both UAs to meet demand under the high scenario is likely to increase due to permitted development rights. However, based on the relatively low starting point the effect is not likely to be significant.

8.19. The areas where there are significant imbalances between supply and demand are as follows:

Medium High Scenario

- Bristol – Industrial (over-supply)
- Bristol – Warehousing (under-supply)
- South Glos – Office (over-supply)
- South Glos - Industrial and Warehousing (over-supply)
- North Somerset – Office and Industrial (over-supply)
- North Somerset – Warehousing (under-supply)

High Scenario

- As above apart from North Somerset office which is in relative balance

Inter-FEMA supply demand dynamics

8.20. When assessing the quantitative and qualitative needs of the market it is appropriate to do so at the FEMA level. This corresponds to national policy (e.g. NPPF paragraphs 160 and 161 and 'duty to cooperate') and guidance (NPPG).

8.21. For example, if there is unmet need for a particular land use such as office in one UA, but just across the UA boundary there is a large amount of available office land, it would be appropriate and rational for that need to be met in the neighbouring UA. Based on this principle it is therefore possible to rebalance tables 8-1 and 8-2 above so that where appropriate unmet economic development needs in one UA are met in a neighbouring UA within the WoE FEMA. This is done by apportioning the un-met employment land needs in one area to areas where there is a relative oversupply. This quantitative rebalancing exercise is only performed where it would be appropriate and realistic from a market perspective to do so.

8.22. For example, it would <u>not</u> be appropriate to apportion unmet Bristol City Centre office needs to land identified for warehousing/office use in Junction 21 in N. Somerset. In this hypothetical example the economic development needs relate to firms desire to be in Central Bristol not in Weston. In this respect a qualitative assessment is made and applied to the quantitative supply demand balance exercise. This corresponds to the requirements as set out in para 161 of the NPPF.

8.23. It should be noted that this rebalancing of supply and demand across the FEMA is a high level strategic exercise that is used to establish at a FEMA level whether there is sufficient employment space in broad locations to meet identified economic development needs. It is used to inform and guide the strategic spatial planning direction of the WoE Joint Spatial Plan. Individual UAs, within their Local Plans, can use this information as a basis to develop their distinct economic and employment land policies that reflect their individual circumstances, policy priorities and objectives. For example, this approach also recognises the need for planning policy to seek to encourage sustainable travel patterns as more sustainable travel patterns will reduce unsustainable commuting. Whilst acknowledging the dynamics of the West of England FEMA that suggest an element of cross-commuting will exist, it is worth noting that another dimension to this

[44] Note it is not possible, due to a lack of data, to accurately forecast the impact in quantitative terms of the PD rights on office demand in this assessment.

is the need to plan for sustainable growth that reduces commuting where appropriate and this may occur at the strategic and/or local level.

8.24. The results of this rebalancing exercise are shown in Tables 8-3 and 8-4 below. A full explanation of the assumptions made and justification is provided at Appendix D.

Table 8-3 Rebalanced Demand-Supply (2016 – '36) – Medium-High Scenario (Ha*)

UA	Office (B1a/b)	Industrial (B1c/B2)	Warehousing (B8)	Total
BANES	16,353*	4	1	4*
Bristol	70,108*	0	0	0*
N. Somerset	14	13	0	26
S. Glos.	12	315	181	508
Total (FEMA)	**26***	**331**	**182**	**539**

Source: Atkins Figures in the Table have been rounded. * Supply in Bristol and BANES is shown in m^2 and not factored into the totals as it is not appropriate to convert to land as office accommodation will be provided in as yet defined multi-storey buildings.

Table 8-4 Rebalanced Demand-Supply (2016 – 2036) – High Scenario (Ha*)

UA	Office (B1a/b)	Industrial (B1c/B2)	Warehousing (B8)	Total
BANES	-5,647*	0	- 5	-5*
Bristol	- 16,792*	0	0	0*
N. Somerset	6	0	0	6
S. Glos.	0	291	131	421
Total (FEMA)	**7***	**290**	**125**	**423**

Source: Atkins Figures in the Table have been rounded. * Supply in Bristol and BANES is shown in m^2 and not factored into the totals as it is not appropriate to convert to land as office accommodation will be provided in as yet defined multi-storey buildings.

8.25. **Tables 8-3** and **8-4** show that after rebalancing supply and demand across the WoE FEMA there are fewer 'red' areas i.e. those with an under or over-supply of employment land. However, in absolute terms there is still a relatively significant surplus of employment land in the WoE FEMA to meet projected demand at between 423 and 539 hectares. This is made up in the Medium-High Scenario by North Somerset industrial land and office land which still has a relative over-supply of 13ha and 14 ha respectively. Also, South Glos has a significant over-supply of industrial and warehousing land of 496 (mainly at Severnside) and 12 ha of office land oversupply. Under the High Scenario there remains an over-supply of warehousing and industrial land in South Glos to meet projected demand. This also relates mainly to Severnside.

Implications for Spatial Planning Polices

8.26. The analysis conducted in this report provides evidence that could underpin spatial policies in the forthcoming WoE JSP and individual UA Local Plan reviews. The key EDNA study conclusions and issues that could require policy responses in the JSP and Local Plan reviews include the following:

- Increasing future competition from other areas of England, such as Oxfordshire, Birmingham and the Northern Powerhouse as well as international competition and the effects of globalisation, mean that the West of England UAs and LEP should be positive and proactive in encouraging economic development in the WoE FEMA through spatial planning and other policy means.

- According to the findings of the EDNA the identified economic development needs of the FEMA to 2036 can be met in the available developable employment space. There is a relative balance in most areas apart from Avonmouth/Severnside where there is an oversupply (see below). This suggests that most existing WoE employment allocations could be retained.

- There is a relative oversupply of land at Avonmouth/Severnside to meet identified WoE FEMA economic development needs. The future spatial policy options for this land include; a) the land could represent a long term 'reservoir' of employment land to meet future as yet unidentified needs and accordingly could be retained as employment land at this time; b) the land could be identified for a greater diversity/mix of uses.

- To address relative deprivation and market failure in South Bristol, development schemes (infrastructure, housing and employment) within South Bristol and its fringe could be pursued. This could help challenge the status quo, create a virtuous cycle of investment and stimulate demand for employment uses, thereby helping to create jobs and addressing relative deprivation.

- To fulfil the economic potential of the WoE area and to provide local employment that will address local relative deprivation it is important that the local workforce has the relevant skills to meet business needs. The EDNA study identified that a relative skills gap exists in the WoE and this has the potential to hinder future economic development in the WoE in the planning period. Therefore to address this issue policies and initiatives should be put in place to address the relative skills gap in the WoE.

Appendix A. Stakeholder & Agent Consultation

The following agents and stakeholders were engaged as part of the EDNA consultation process:

- Bristol Property Agents Association
- CBRE
- Knight Frank
- Alder King
- Savills
- GVA
- DTZ
- Hartnell Taylor Cook
- Bristol Port
- Bristol Airport
- Science Park
- Ashfield Land
- UKTI
- GL Hearn Limited
- St Modwen
- Gloucestershire County Council
- Somerset County Council
- Monmouthshire County Council
- Wiltshire District Council
- Mendip
- Stroud District Council
- Cotswold District Council
- Sedgemoor District Council
- Forest of Dean District Council
- Environment Agency
- English Heritage
- Natural England
- Civil Aviation Authority
- Homes and Communities Agency
- Office of Rail Regulation
- Highways England
- Gloucestershire NHS Trust
- Wiltshire NHS Trust
- Federation of Small Business
- The B&NES Initiative
- Jones Lang Lasalle (JLL)
- Lambert Smith Hampton
- Carter Jonas
- Deeley Freed
- Cubex
- Crest Nicholson
- Taylor Wimpey

- Industrial Agents' Society
- Williams Gunter Hardwick
- Bristol City Council
- B&NES
- Bristol City Council
- B&NES
- North Somerset
- South Gloucestershire
- Bristol City Council
- South Gloucestershire
- B&NES
- Invest Bristol and Bath

Appendix B. Potential Development Sites

The table below shows indicative potential development sites in the WoE. It is based on best available information gathered from a range of sources and is verified by UA officers. Where there are a variety of potential uses at the development sites the relative split and quantum is shown. This is based on available information or in the absence of this information an equal split between uses i.e. 50%, 50% or 33.3%, 33.3% and 33.3%.

Unitary Auth.	Area/Site (s)	Developable space/Land Sq. m	Ha	Suitable uses	Source of Information & Notes
Bristol	Temple Quarter EZ - Paintworks Phase 3	6,231		B1a	Bristol Core Strategy (2010) & Temple Quarter EZ Development Prospectus (2014)
Bristol	Temple Quarter EZ - Glassfields	36,139		B1a	As above
Bristol	Temple Quarter EZ - Second Floor Victoria House Temple Gate Bristol	-527		B1a	As above
Bristol	Temple Quarter EZ - The Island Site	12,753		B1a	As above
Bristol	Temple Quarter EZ - Mail sorting office	12,198		B1a	As above
Bristol	Temple Quarter EZ - The Eye	0		B1a	As above
Bristol	Temple Quarter EZ - 2 Glass Wharf (ND4)	9,982		B1a	As above
Bristol	Temple Quarter EZ - Former Petrol Filling Station, Bath Road	1,000		B1a	As above
Bristol	Temple Quarter EZ - Plot 3 Temple Quay, The Friary	5,250		B1a	As above
Bristol	Temple Quarter EZ - Bank Place, Temple Way	27,832		B1a	As above
Bristol	Temple Quarter EZ - Old Bread Street Site (Plot ND6)	3,000		B1a	As above
Bristol	Temple Quarter EZ - Royal London site (Plot ND7)	6,500		B1a	As above
Bristol	Temple Quarter EZ - Anvil Street (Plot ND9)	0		B1a	As above
Bristol	Temple Quarter EZ - 3 Glass Wharf (ND5)	9,250		B1a /Mixed	As above
Bristol	Temple Quarter EZ - Temple Circus	8,500		B1a	As above
Bristol	Temple Quarter EZ - Former Petrol Station site, Temple Gate	2,000		B1a	As above
Bristol	Temple Quarter EZ - Templegate Peugeot site	7,000		B1a	As above
Bristol	Temple Quarter EZ - Bristol and Exeter Yard (TCN) site Bristol and Exeter Yard (TCN) site	1,000		B1a	As above
Bristol	Temple Quarter EZ - Plot 6 Temple Quay, The Friary	4,800		B1a	As above

Unitary Auth.	Area/Site (s)	Developable space/Land Sq. m	Ha	Suitable uses	Source of Information & Notes
Bristol	Temple Quarter EZ - Fish Dock/ Kwik-Fit site	5,100		B1a	As above
Bristol	Temple Quarter EZ - Avon Riverside site, Bath	1,140		B1a	As above
Bristol	Temple Quarter EZ - Silverthorne Lane	21,000		B1a	As above
Bristol	Temple Quarter EZ - Arena site	6,100		B1a	As above
	Temple Quarter Enterprise Zone SUBTOTAL	**186,248**		All B1a	
Bristol	**South Bristol –** Hengrove Park and Town Centres	45,050		B1a	Bristol Core Strategy (2011) Policy BCS1, BCS8 and South Bristol Employment Sites and Premises Assessment
Bristol	**South Bristol –** BSA1305 NW Vale Lane		0.8	0.4 ha B2 0.4ha B8	Site Allocations DPD (2014)
Bristol	**South Bristol –** BSA1119 Hartcliffe Way South of Waste Depot		0.9	0.45 B2 0.45 B8	Site Allocations DPD (2014)
Bristol	**South Bristol SUBTOTAL**	**45,050**	**1.7**		
Bristol	**Avonmouth and Severnside –** Access 18		15.6	7.8ha B2 7.8ha B8	Avonmouth Severnside Development Strategy
Bristol	**Avonmouth and Severnside –** Cabot Park Poplar Fields		2.4	1.2 ha B2 1.2ha B8	As above
S. Glos.	**Avonmouth and Severnside –** Westgate		122.0	61 B2 61 B8	SGC mapping based on masterplan area
S. Glos.	**Avonmouth and Severnside –** GPark Plot 6030		2.6	1.3 B2 1.3 B8	SGC ELAS 2015 - application PT09/0461/RM for plots 6030 & 6040
S. Glos.	**Avonmouth and Severnside –** GPark Plot 8020		6.2	3.1 B2 3.1 B8	SGC ELAS 2015 - application PT09/0751/O
S. Glos.	**Avonmouth and Severnside –** Avalon Works		40.0	20 B2 20 B8	SGC ELAS 2015 - application PT10/2630/O
S. Glos.	**Avonmouth and Severnside –** Central Park		83.0	41.5 B2 41.5 B8	Based on Master Plan total area of 94.74ha (minus completions at CHEP = 3.23ha and Unit 5 Farmfoods = 8.50ha
S. Glos.	**Avonmouth and Severnside –** Portal West Distribution Park		25.0	12.5 B2 12.5 B8	based on Masterplan - total area of 50.79ha minus completion of Plot 1 Tesco = 25.27ha
S. Glos.	**Avonmouth and Severnside –** Avon Power Station		46.0	23 B2 23 B8	Planning Inspectorate[45]
S. Glos	**Avonmouth and Severnside –** Seabank 3 Powerstation		22.0	11 B2 11 B8	SSE[46]
	Avonmouth and Severnside SUBTOTAL		**364.8**	182.4 B2 182.4 B8[47]	

[45] http://infrastructure.planninginspectorate. gov.uk/ projects/south-west/avon-power-station-950-mw-output/?ipcsection=overview
[46] http://sse.com/whatwedo/ourprojectsandassets/thermal/seabankthree/
[47] For Avonmouth/Severnside an assumption is made that the available land could come forward for 50% B2 and 50% B8. This is because the uses are to a degree interchangeable and although there are existing

Unitary Auth.	Area/Site (s)	Developable space/Land Sq. m	Ha	Suitable uses	Source of Information & Notes
S.Glos	**Filton EA –** Airfield		24.0	12ha B1 12ha B2	PT14/3867/O. Granted.
S.Glos	**Filton EA –** Rodney Works		4.0	2ha B1 2ha B2	PT08/1373/RM. Planning Permission
S.Glos.	**Filton EA –** East Works		26.62	8.9 B1 8.9 B2 8.9 B8	PT07/2481/F.ELAS 20104 ref.1416 (pg16) Planning Permission
S.Glos	**Filton EA –** Cribbs Catbrain Lane		0.74	B1a/c	PT10/1001/F. Planning Permission
S.Glos	**Filton EA –** Charlton Hayes		1.8	B1a	PT14/5028/O
S.Glos	**Filton EA –** Filton Triangle		17.5	B2	PT11/2781/F ELAS ref. 1502 (pg15).
	Filton EA SUBTOTAL		**74.7**		
S.Glos.	**Emersons Green –** Science Park		16.87	B1b	S Glos Employment Land Supply Assessment (2014) and GIS mapping from site survey observations
S.Glos.	**Emersons Green –** Harlequin Office Park		1.76	B1	PK11/2551/RM
	Emersons Green – Emersons Green East		20.0	6.7 B1 6.7 B2 6.7 B8	PK04/1965/O
S.Glos.	**Emersons Green –** Emersons Green East Reserve Land		5.0	1.7 B1 1.7 B2 1.7 B8	SGLP Policy M2.E
S.Glos	**Emersons Green SUBTOTAL**		**43.6**		
BANES	**Bath Riverside –** Innovation Quay	28,000		B1a	Bath Core Strategy Policy B1 and Bath Riverside Masterplan
BANES	**Bath –** Other sites across Bath	12,000		B1a	As above
BANES	**Offices losses in Central Bath**	-6,652		B1a	BANES consultation
BANES	**Bath SUBTOTAL**	**33,348**			
N. Som.	**North Somerset –** Gordano Gate, Wyndham Way, Portishead		3.52	B1/B2/B8 [48]	http://innorthsomerset.co.uk/junction-21/developer-zone
N. Som.	**North Somerset –** Land at Conference Avenue, Wyndham Way, Portishead		0.14	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land at Portishead Quays, Portishead		0.85	B1/B2/B8	North Somerset Council consultation

planning permissions there is also uncertainty, due to the infrastructure and viability constraints mentioned in the report, that these sites will be developed in the proposed way during the planning periods. Therefore it is proportionate for a high level strategic study such as this to make an assumption of an even split between industrial and warehousing uses.

[48] Land use in North Somerset is assumed to be evenly split between B1, B2, B8 uses.

Unitary Auth.	Area/Site (s)	Developable space/Land Sq. m	Ha	Suitable uses	Source of Information & Notes
N. Som.	**North Somerset –** Severn Paper Mill, Harbour Road, Portishead			B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land at Lynx Crescent, Weston Industrial Estate		3.5	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** West of Winterstoke Road, WSM		0.5	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land at Winterstoke Road Business Park/Weston Euro Park, Winterstoke Road		13.56	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land at Sunnyside, WSM		1.2	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Former Gas Works, Marchfields Way, WSM		1.9	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land off Winterstoke Road/Old Junction Road, WSM		5	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land adjacent to Transfer Station, Aisecome Way, WSM		1.7	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land East of Park and Ride site, WSM		7.4	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land at Bridge Farm, St Georges		1.5	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land at Locking Castle Business Park, WSM		10.33	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land at Weston Gateway Tourist Park, West Wick, WSM		2.75	B1/B2/B8	North Somerset Council consultation and J21 EA website developer zone
N. Som.	**North Somerset –** Land at Moor Lane, Backwell		1	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Clevedon 5/20, Rear of Portbury House, Kenn		3.12	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Employment land provision at former Long Aston Research Station		0.39	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land at Havyat Road Trading Estate, Wrington		1.32	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land at Wemberham Lane, Yatton		4.4	B1/B2/B8	North Somerset Council consultation

Unitary Auth.	Area/Site (s)	Developable space/Land Sq. m	Ha	Suitable uses	Source of Information & Notes
N. Som.	**North Somerset –** Park, Yatton		0.4	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land south of Wemberham Lane, Yatton		1.2	B1/B2/B8	North Somerset Council consultation
N. Som.	**North Somerset –** Land at Weston Airfield(East), Locking Moor Road, WSM		17	B1/B2/B8	North Somerset Council consultation and J21 EA website developer zone[49]
N. Som.	**North Somerset –** Weston Business Park, Locking Moor Road, WSM		5.3	B1/B2/B8	North Somerset Council consultation and J21 EA website developer zone
N. Som.	**North Somerset –** Land west of Kenn Road, Kenn		8.2	B1/B2/B8	North Somerset Council consultation
N. Som	**North Somerset SUBTOTAL**		**96.18**		
	North/East Fringe				
S. Glos.	Aztec West		4.3	B1	
S. Glos.	Aztec Park Avenue		1.3	B1	
S. Glos.	Former Mushroom farm Cribbs Causeway		1.9	B2	
S. Glos.	Land off Highwood Lane Cribbs Causeway		0.3	B8	
S. Glos.	Vantage Park Bradley Stoke		0.1	B1	
S. Glos.	Longwell Green Trade Park		0.5	0.17 B1 0.17 B2 0.17 B8	
S. Glos.	Aldermoor Way Longwell Green		0.4	B1	
S. Glos.	Southway Drive Warmley		0.7	B1	
	North/East Fringe SUBTOTAL		**9.5**		
Bristol	**Other parts of WoE – BCC** City Centre not EZ	30,761		B1	Bristol Core Strategy Policy BCS8
Bristol	Other areas of Bristol	-30,247		Office	Bristol Core Strategy & Monitoring data
BANES	**Other parts of WoE – BANES** PSJ Business Park, Keynsham KE3a and Old Mills		28.5	9.5 B1, 9.5 B2 9.5 B8	GIS mapping from site survey observations
S. Glos.	**Other parts of WoE –** Other parts of S. Glos. inc. various sites in Yate		12.5	6.25 B1 6.25 B2	S Glos Employment Land Supply Assessment (2014) and GIS mapping from site survey observations
	Other parts of WoE SUBTOTAL	**514**	**41.0**		
Total		**265,160**	**631.5**		

[49] http://innorthsomerset.co.uk/junction-21/developer-zone

Appendix C. Glossary

ABI (Annual Business Inquiry) - document produced by the Office of National Statistics, presenting financial and employment information about the UK economy.

Allocated Land/Sites/Areas - Land which is defined in the development plan as being acceptable in principle for development for a particular purpose and which is not already in use for that purpose.

Authorities Monitoring Report (AMR) - Part of the Development Plan, the authorities monitoring report assesses the implementation of the local development scheme and the extent to which policies in local development documents are being successfully implemented.

BANES – Bath and North East Somerset Unitary Authority

B Use Classes - Use Classes Order 1987 as amended. Classes of use for England are set out in the Town and Country Planning (Use Classes) Order 1987 and its subsequent amendments; B1 Business - Offices, research and development, light industry appropriate in a residential area; B2 General industrial; B3-B7 Special Industrial Groups **-**Special industrial uses as set out in the 'Use Classes Schedule', e.g. Oil refining; B8 Storage or distribution -This class includes open air storage.

Comprehensive development area – provides for the development or redevelopment of a large site for mixed use development as part of a comprehensive development plan.

Economic activity rate - The number of people, who are economically active aged 16 to 59/64, expressed as a percentage of all working age people.

Economically Active - people that are in employment, either employees or self-employed and those that are unemployed of working age (over 16) and who are looking and available to start work. They represent the total potential workforce in an area.

Economically Inactive - people who are neither in employment or registered unemployed, e.g. those looking after the home/children or retired (and of working age), or those that have not sought work in the last four weeks and are not available to start work.

Evidence Base - the information gathered by a planning authority to support the preparation of development documents. It includes quantitative (numerical values) and qualitative (feelings and opinions) data.

Green Belt - Area of land, largely rural in character, which is adjacent to the main urban areas and which is protected from development by permanent and severe restrictions on building. The emphasis is on restricting the sprawl of urban centres, preventing the coalescence of neighbouring towns and preserving the individual character of settlements, although Green Belts may also provide suitable locations for recreational development and act as a buffer between the most rural countryside and the pressure of growing towns.

Greenfield Land - land that has not previously been used for urban development. It is usually land last used for agriculture and located next to or outside existing built up areas of a settlement.

Gross Value Added (GVA) - An indicator of economic prosperity. It measures the contribution to the economy of each individual producer, industry or sector. It is based on the difference between the value of goods and services produced and the cost of raw materials and other inputs that are used in production.

Local Development Plan - the framework for delivering the spatial planning strategy for the area, comprised of local development documents, Authorities Monitoring Report, Local Development Scheme and Statement of Community Involvement.

LEP – Local Enterprise Partnership. Set up by Government to represent business interests of a rational economic market area. Made up of business representatives, local authorities and other bodies with an interest in economic development.

Location Quotient - A measure of how strongly different industries are represented in the local economy compared to the wider region.

Mixed use – Development that combines two or more types of development, such as residential, office, industrial, retail, service, community facilities or leisure.

NPPF (National Planning Policy Framework) – The National Planning Policy Framework (NPPF) was published in March 2012. It is a key part of the coalition Government's reforms which aim to make the planning system less complex and more accessible and to promote sustainable growth. It consolidates all policy statements, circulars and guidance documents into a single, simpler Framework.

N. Somerset – North Somerset UA

ONS (Office of National Statistics) – The Office for National Statistics (ONS) is the executive office of the UK Statistics Authority. ONS produces and publishes a wide range of the information about Britain that can be used for social and economic policy-making as well as painting a portrait of the country as its population evolves over time

PPG – National Planning Practice Guidance (2014)

Plot Ratio – the ratio of floor space within a building to the area of the site on which it sits.

Sector – broad classification for business activities.

SIC - Standard Industrial Classification - classifies businesses by type of economic activity. This allows for statistical analysis and comparison.

Sustainable Development – development that meets the needs of the present without compromising the ability of future generations to meet their own needs

Unemployment – Refers to people without a job who were available to start work in the two weeks following their interview and who had either looked for work in the four weeks prior to interview or were waiting to start a job they had already obtained.

Unemployment rate – The number of unemployed people aged 16 to 59/64 expressed as a percentage of the economically active population aged 16 to 59/64.

Use Classes Order – the Town and Country Planning (Use Classes) Order 1987 puts uses of land and buildings into various categories. Planning permission is not needed for changes of use within the same use class. In practice, changes between use classes are likely to require planning permission

Working Age – residents aged between 16 and 74.

WELEP – West of England Local Enterprise Partnership

WoE – West of England (including Bristol City Council, South Gloucestershire, North Somerset, Bath and North East Somerset)

Appendix D. Table 8-3 & 8-4 Demand Supply Rebalancing

The key demand supply rebalancing changes made in Tables 8-3 and 8-4 above are summarised and justified below:

Medium High Scenario - Rebalanced Demand-Supply Balance

- The relative under-supply of warehousing land (-49ha) in Bristol could be addressed by reassigning 33 ha of Bristol industrial over-supply to it and 15.3ha of warehousing oversupply in South Glos. This results in Bristol warehousing and industrial supply/demand balance being 0 while South Glos warehousing supply-demand balance remains in over-supply by 181.3 ha. This is justified because warehousing and industrial land shares similar characteristics and can be interchanged without significant planning or economic implications.

- Industrial oversupply in North Somerset (+37ha) is addressed by transferring -24ha of warehousing undersupply from North Somerset. Leaving +13 of industrial oversupply but a relative balance of warehousing land (0ha). This is also justified because warehousing and industrial land shares similar characteristics and can be interchanged without significant planning or economic implications.

High Scenario - Rebalanced Demand-Supply Balance

- The relative under-supply in Bristol warehousing land (-68ha) could be addressed by reassigning 22 ha of Bristol industrial over-supply to it and 46ha of South Glos warehousing over-supply. This results in Bristol warehousing and industrial supply/demand balance being 0. This is justified as warehousing and industrial land shares similar characteristics and can be interchanged without significant planning or economic implications.

- Office under-supply in South Glos (-5 ha) is addressed by transferring relative oversupply of industrial space in South Glos (+5 ha). This reduces North Somerset office over-supply to 0 but industrial over-supply in South Glos remains at 290 ha. The transference of office demand from North Somerset is realistic and justified as per the reasons provided above. The reassignment of 5ha industrial over-supply in South Glos to meet office under-supply is justified as this relates to land at sites that can accommodate a range of business uses such as Emersons Green EA and Filton EA.

- The relative undersupply of warehousing land in North Somerset (-33ha) is addressed by transferring 28ha of industrial oversupply from North Somerset and 5 ha of warehousing oversupply in South Glos. This changes the balance to 0 for industrial and warehousing in North Somerset and reduces the oversupply in South Glos to 130ha. It is appropriate as the uses and locations are largely interchangeable.

It should be noted that the quantitative assessment described above contains a level of uncertainty due to the inherent unpredictability in the job forecasts and the supply of future sites needed to provide for a choice of size, quality, type and location of premises. Providing a precise match of sites and premises to meet actual demand is generally not realistically achievable and is accordingly not the purpose of this strategic exercise. However, balancing the supply and demand in a high level quantitative way is a useful indicative exercise. It allows the Council to consider what general policy approaches they will need to take forward to meet the future employment needs in the FEMA and to promote growth that responds to market signals. This accords with the principles set out in the PPG[50].

[50] National Planning Practice Guidance (PPG), para 032 and 033 Reference ID: 2a-032-20140306

Appendix E. Comparison of 2010, 2013 and 2015 Oxford Economics Employment Forecasts

The OE employment forecasts made in 2010, 2013 and 2015 demonstrate a broadly similar picture of overall demand across the WoE. However the distribution of demand between the unitary authorities differs relatively significantly in the three different sets of forecasts. This demonstrates the relative volatility of forecasts when disaggregated to a lower level geography. This suggests that both the 2010 and 2013 forecasts along with the 2015 OE forecasts could potentially be used to inform spatial planning decisions. The OE employment forecasts made in 2010 (2010 – 2030) and 2013 (2013 – 2036) and 2015 (2015 – 2036) are shown in the following table:

UA	2010	2013	2015	2010	2013	2015
	Stronger Scenario (additional jobs and % of total)	**High Scenario (additional jobs and % of total)**	**High Scenario (additional jobs and % of total)**	**Central Scenario (additional jobs and % of total)**	**Mid High Scenario (additional jobs and % of total)**	**Mid High Scenario (additional jobs and % of total)**
B&NES	14,300 (12%)	4,355 (4%)	11,732 (11%)	9,000 (11%)	333 (0%)	8,059 (11%)
BRISTOL	42,400 (36%)	25,564 (22%	35,437 (34%)	27,200 (33%)	13,451 (16%)	24,018 (32%)
NSOM	20,300 (17%)	21,873 (19%)	19,633 (19%)	15,700 (19%)	16,569 (20%)	15,042 (20%)
SGLOS	39,600 (34%)	65,977 (56%)	37,189 (36%)	29,600 (36%)	53,173 (64%)	27,585 (37%)
WOE	**116,600 (100%)**	**117,768 (100%)**	**103,991 (100%)**	**81,500 (100%)**	**83,526 (100%)**	**74,704 (100%)**

Source: Oxford Economics 2010/2013/2015

Appendix F. Explanation of the differences between 2013 and 2015 Oxford Economics Employment Forecasts:

Appendix F is completed by Oxford Economics (OE). It explains the differences between the 2013 and 2015 OE employment forecasts.

The historical data underpinning the two datasets is different. Changes to the historical data affect the starting point for the forecasts and the structural composition of the economy upon which the forecast is based. Between 2013 and 2015 two key data sources provided new information. The BRES – which provides detailed employment for the local areas – provided data to 2011 when the 2013 dataset was compiled, with 2013 data and revised 2011 and 2012 data available for the 2015 update. Secondly, the most recent Oxford Economics' dataset includes a broad range of information from the 2011 Census which wasn't available in February 2013. This includes information on commuting, self-employment and population.

The table below compares the 2013 values from both releases and highlights revisions of over 1,000. It is clear that the BRES results were much weaker for South Gloucestershire than the 2013 estimates suggested, with significant downward revisions to the professional, scientific & technical and admin & support services sectors. Overall Bristol's employment is higher in the latest update than we had previously estimated with significant revisions in some sectors.

2013 revisions	Bath and North East Somerset	Bristol	North Somerset	South Gloucestershire
A : Agriculture, forestry and fishing	-0.1	0.0	-0.1	-0.1
B : Mining and quarrying	0.0	0.0	0.0	0.0
C : Manufacturing	-0.4	-0.5	0.3	-1.2
D : Electricity, gas, steam and air conditioning supply	0.0	0.3	0.0	-0.6
E : Water supply; sewerage, waste management and remediation activities	-0.2	-0.7	0.0	0.4
F : Construction	0.7	2.6	0.7	-0.1
G : Wholesale and retail trade; repair of motor vehicles and motorcycles	-0.3	0.0	-1.1	-2.6
H : Transportation and storage	-0.3	2.3	-1.2	-0.5
I : Accommodation and food service activities	-0.1	0.8	-0.2	0.5
J : Information and communication	-0.6	-1.0	-0.2	-2.1
K : Financial and insurance activities	-0.1	-4.0	0.6	0.5
L : Real estate activities	0.1	-0.3	0.6	0.1
M : Professional, scientific and technical activities	-0.3	2.0	-0.4	-7.6
N : Administrative and support service activities	0.4	-0.7	0.4	-6.2
O : Public administration and defence; compulsory social security	-1.9	-1.4	-0.2	1.4
P : Education	0.6	1.1	0.9	0.4
Q : Human health and social work activities	1.7	2.8	1.4	0.1
R : Arts, entertainment and recreation	0.9	1.3	0.5	0.0
S : Other service activities	0.5	0.4	0.6	0.2
Total	0.8	5.0	2.4	-17.3

Revisions to the economic outlook. - The forecast for any location is predicated on assumptions about the scale and composition of future economic growth. These encompass a wide range of factors including an assessment of international growth prospects (for example, the strength of the global economy and risks to the outlook), domestic growth factors (such as the influence of government and monetary policy on national and local economic growth) and local demand and supply conditions.

The table overleaf compares the UK employment forecast from both updates.

UK

2014-2036	2015 update	2013 update	Diff
A : Agriculture, forestry and fishing	-110	-70	-40
B : Mining and quarrying	-30	-34	4
C : Manufacturing	-590	-688	98
D : Electricity, gas, steam and air conditioning supply	-28	-27	-2
E : Water supply; sewerage, waste management and remediation activities	-30	-46	17
F : Construction	579	405	174
G : Wholesale and retail trade; repair of motor vehicles and motorcycles	347	487	-140
H : Transportation and storage	112	123	-11
I : Accommodation and food service activities	263	220	43
J : Information and communication	314	171	143
K : Financial and insurance activities	12	20	-8
L : Real estate activities	152	164	-12
M : Professional, scientific and technical activities	1021	950	71
N : Administrative and support service activities	900	798	102
O : Public administration and defence; compulsory social security	-232	-125	-107
P : Education	57	-57	114
Q : Human health and social work activities	457	387	70
R : Arts, entertainment and recreation	288	261	27
S : Other service activities	209	165	44
Total	3691	3105	586

The latest forecast suggests almost 3.7m additional jobs between 2014 and 2036, almost 600,000 more than the previous forecast suggested.

Combining these factors has resulted in the changes to local areas. The table below summarises the local changes.

2014-2036	2015 update	2013 update	Diff
Bath and North East Somerset	6	-4	10
Bristol	18	3	15
North Somerset	14	12	1
South Gloucestershire	26	44	-19
West of England	63	56	8
South West	242	265	-23
UK	3691	3105	586

- South Gloucestershire's employment outlook is weaker than the 2013 update as a result of data revisions particularly within the professional, scientific & technical and admin & support services sectors, as these sectors together are expected to account for over half of jobs forecast in the UK.
- Bristol's outlook is stronger than the 2013 update as result of the areas sectoral mix. Upward revisions to UK employment outlook for education, health & social work, professional services and admin & support services underpin the changes to Bristol.
- Again a higher starting point accompanied with a stronger employment outlook for education and health & social work underpin the revisions to Bath & NE Somerset employment forecast.

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