

Employment Land Needs Assessment

Update 2017

An update on the quantitative
aspect of employment land for
the Waveney Economic Area

Offices | Light industry | General industry | Storage and distribution

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1 Introduction

- 1.1 This study provides an update to the Employment Land Needs Assessment 2016 for the Waveney Economic Area. Employment land is land used for offices, light industry, general industry and storage and distribution. These uses fall within Use Classes B1, B2, and B8 of the Use Classes Order, (referred to as B class uses in this study).
- 1.2 The Employment Land Needs Assessment 2016 was undertaken by Nathaniel Lichfield and Partners working alongside a client group made up of officers from Babergh, Mid Suffolk, Ipswich, Suffolk Coastal and Waveney Councils. The assessment provided a qualitative and quantitative overview of employment land needs and barriers to growth. It was published in February 2016.
- 1.3 This study only updates the quantitative side of the work in terms of forecasting future floorspace and land requirements. The Employment Land Needs Assessment 2016 used forecasts based on the 2014 run of the East of England Forecasting Model. For Waveney, the study provided two scenarios, one on the standard baseline output from the forecasting model and another specifically designed for the study which modelled the likely uplift from expansion of offshore wind locally to Waveney. The study covered the period 2011-2031. For this period, the study forecasted a need for 13 hectares of employment land under the baseline scenario and 16.5 hectares for the offshore scenario.



- 1.4 Since the publication of the Employment Land Needs Assessment 2016 new economic projections from the East of England Forecasting Model have been published dated July 2016. These projections now look forward to 2045. The Council has also commissioned further work on understanding the objectively assessed need for housing. Part of this work uses additional economic forecasting provided by Experian.
- 1.5 This study makes use of these latest forecasts to provide an updated analysis of employment land need. This study also considers past take up rates of employment land from monitoring of completions of planning permissions to act as a comparison to the land requirements derived from the economic forecasts.
- 1.6 This study uses a different timescale from the 2016 study to reflect the plan period of the emerging Waveney Local Plan which runs from 2014 to 2036.

2 Methodology

Economic Projections

- 2.1 In terms of converting economic forecasts of jobs growth to employment land needs, this study uses a broadly similar methodology to that used in the Employment Land Needs Assessment 2016 with a few tweaks to some of the assumptions.

Step 1 – Assignment of Sectors

- 2.2 Not all employment change as identified by the economic projections require employment land (i.e. B class uses). The first step in the process is to therefore identify what jobs will require employment land. Helpfully, economic projections from the East of England Forecasting Model and Experian breakdown changes in jobs numbers by sector. The tables below show how this study has assigned the different sectors to B class uses or non-B class use. The assignment of sectors to use classes is broadly the same as that used for the Employment Land Needs Assessment 2016. However, for the offshore scenario 20% of construction jobs have been assumed to be in B class uses reflecting the uplift in these jobs associated with the expansion of offshore wind which are likely to require employment land.

Table 1 - EEFM Baseline Sector Assignment

Sector	Use Class Split						
	B1a General Officer	B1a Busines s Park	B1a Call Centre	B1b Science Park	B1b Research and Develop ment	B1c / B2	B8
Manufacturing - food						100%	
Manufacturing - general						100%	
Manufacturing - chemicals only						100%	
Manufacturing - pharmaceuticals						100%	
Manufacturing - metals						100%	
Manufacturing - transport equipment						100%	
Manufacturing - electronics						100%	
Utilities		50%	50%				
Waste & remediation						97%	
Wholesale						30%	70%
Land transport							39%
Publishing & broadcasting	11%					66%	23%
Telecoms	20%						80%
Computer related activity	30%	60%	10%				
Finance	100%						
Real estate	90%	10%					
Professional services	30%	30%	1%	28%	7%		
Research & development	10%	10%		20%	60%		
Business services	9%	4%	9%	71%	1%		
Employment activities	13%	2%	1%	5%	1%	8%	12%
Public administration	61%						

Table 2 - EEFM Offshore Scenario Sector Assignment

Sector	Use Class Split						
	B1a General Office	B1a Busines s Park	B1a Call Centre	B1b Science Park	B1b Research and Develop ment	B1c / B2	B8
Manufacturing - food						100%	
Manufacturing - general						100%	
Manufacturing - chemicals only						100%	
Manufacturing - pharmaceuticals						100%	
Manufacturing - metal						100%	
Manufacturing - transport equipment						100%	
Manufacturing - electronics						100%	
Utilities		50%	50%				
Waste & remediation						97%	
Wholesale						30%	70%
Land transport							39%
Publishing & broadcasting	11%					66%	23%
Telecoms	20%						80%
Computer related activity	30%	60%	10%				
Finance	100%						
Real estate	90%	10%					
Professional services	30%	30%	1%	28%	7%		
Research & development	10%	10%		20%	60%		
Business services	9%	4%	9%	71%	1%		
Employment activities	13%	2%	1%	5%	1%	8%	12%
Public administration	61%						
Construction						20%	

Step 2 – Employment Densities

- 2.3 To convert jobs growth to floorspace it is necessary to multiply the number of jobs by average amount of floorspace per job (employment density) for each type of B class use.

$$\text{Jobs Growth} \times \text{Employment Density (floorspace in sqm per job)} \\ = \text{Floorspace Needs}$$

- 2.4 The employment projections for each sector and B class use have been converted to floorspace using the same employment densities as the Employment Land Needs Assessment 2016. These were largely based on the HCA/OffPAT guidance on employment densities published in 2010. The guidance takes into account recent trends in the use of employment floorspace such as flexible working and hot-desking. The densities used are shown in the table below.

Table 3 - Employment Densities

B Use Class	Employment Density (Sq.m per job)
B1a – General Office	12.5
B1a – Serviced Business Centre and Business park	10.5
B1a – Call centres	8
B1b – Science Park and Small Business Units	32
B1b – High tech R&D	25
B1c / B2 – Industry	43
B8 – Distribution	67

- 2.5 An allowance of 10% is added to all floorspace requirements to reflect normal levels of market vacancy in employment space. Where a reduction in jobs is forecast (e.g. industry/manufacturing), the associated negative floorspace has been halved. This reflects the fact that while there may be ongoing manufacturing job losses (e.g. as firms use more efficient production approaches), it doesn't automatically follow that the space required to accommodate this activity also reduces at the same scale.

Step 3 – Land Requirements

- 2.6 Plot ratios (floorspace per hectare) are used to convert floorspace to land requirements.

$$\text{Floorspace} \times \text{Plot Ratio (floorspace per hectare)} = \text{Land Requirements}$$

- 2.7 Plot ratios differ based on the type of B class land use. A local analysis of plot ratios on existing industrial areas has been undertaken which indicates the following plot ratios are appropriate in Waveney.

Table 4 - Plot Ratios

Land Use Class	Plot Ratio
B1a - Offices	0.4
B1b/c and B2 – Light Industry and General Industry	0.35
B8 – Storage and Distribution	0.2

Past Completion Rates

- 2.8 To complement the analysis of economic projections, data has been collected on past completion rates of new-build employment floorspace. These trends on actual completions and changes in employment floorspace can give an insight into the likely future requirements of employment land. They can be compared against the floorspace and land requirements calculated from the economic projections to provide a reality and sense check.
- 2.9 Completions of employment floorspace is monitored annually by the Council's Planning Policy and Delivery Team.

3 East of England Forecasting Model 2016 Projections

- 3.1 The East of England Forecasting Model was developed by the former regional development agency and assembly in response to the need to align economic, labour, demographic and housing evidence for regional strategies. Oxford Economics designed the model and the first results were published in 2007. Ownership of the Forecasting model transferred to the East of England Local Government Association (EELGA) in April 2011, with the operation being managed by Cambridgeshire County Council. In 2016 Cambridge Econometrics were commissioned to provide the 2016 version of the forecast. The model provides forecasts of many variables including total jobs, employee jobs, self employed jobs, GVA, population, and jobs per sector.
- 3.2 Full details of how the model works can be found in the Employment Land Needs Assessment 2016.

Baseline Projection

- 3.3 The 2016 run of the East of England Forecasting Model was modelled by Cambridge Econometrics. The model predicts that over the period 2014 to 2036 there will be 3,431 new jobs created in Waveney. However, as the table below indicates there will be an actual decline in jobs requiring B class floorspace.

Table 5 - EEFM Baseline Jobs Forecast

	Sector	Change in Jobs 2014-2036
Jobs Requiring Employment Land	Manufacturing	-1745
	Utilities	-6
	Waste and Remediation	5
	Wholesale and Land Transport	110
	Publishing and Broadcasting	-66
	Telecoms and Computers	75
	Finance	-96
	Real Estate	265
	Professional and Business Services	608
	Research and Development	-2
	Employment Activities	96
	Public Admin	165
	Total B Use Class Jobs	-741
Jobs Not Requiring Employment Land	Agriculture	-176
	Mining & quarrying	-20
	Construction	2135
	Retail	236
	Water & air transport	15
	Accommodation & food services	1290
	Education	-498
	Health & care	1019
	Arts & entertainment	129
	Other services	43
	Total Non-B Use Class Jobs	3944
	Total Jobs	3431

3.4 The tables below convert these jobs forecasts into floorspace requirements and land requirements following the methodology above.

Table 6 - EEFM Baseline Floorspace Requirements

Sector	Change in Jobs 2014-2036	Floorspace Requirements (sqm)							
		B1a General Office	B1a Business Park	B1a Call Centre	B1b Science Park	B1b Research and Dev	B1c/B2	B8	Total
Manufacturing - food	-905	0	0	0	0	0	-19447	0	-19447
Manufacturing - general	-256	0	0	0	0	0	-5494	0	-5494
Manufacturing - chemicals only	-410	0	0	0	0	0	-8818	0	-8818
Manufacturing - pharmaceutical	-1	0	0	0	0	0	-20	0	-20
Manufacturing - metals	-197	0	0	0	0	0	-4242	0	-4242
Manufacturing - transport equipment	-135	0	0	0	0	0	-2903	0	-2903
Manufacturing - electronics	-82	0	0	0	0	0	-1765	0	-1765
Utilities	-11	0	-28	-21	0	0	0	0	-50
Waste & remediation	7	0	0	0	0	0	327	0	327
Wholesale	51	0	0	0	0	0	719	2613	3331
Land transport	55	0	0	0	0	0	0	1576	1576
Publishing & broadcasting	-69	-48	0	0	0	0	-982	-533	-1562
Telecoms	-10	-12	0	0	0	0	0	-255	-267
Computer related activity	90	373	627	80	0	0	0	0	1080
Finance	-105	-659	0	0	0	0	0	0	-659
Real estate	294	3638	340	0	0	0	0	0	3978
Professional services	297	1225	1029	26	2926	572	0	0	5778
Research & development	-1	-1	-1	0	-4	-10	0	0	-15
Business services	343	424	158	271	8560	94	0	0	9508
Employment activities	103	184	24	9	181	28	390	910	1726
Public administration	201	1689	0	0	0	0	0	0	1689
Total		6813	2149	365	11664	684	-42237	4311	-16251

Table 7 - EEFM Baseline Land Requirements

Waveney	Land Requirements (Hectares)			
	B1a	B1b/c B2	B8	Total
Manufacturing - food	0.00	-5.56	0.00	-5.56
Manufacturing - general	0.00	-1.57	0.00	-1.57
Manufacturing - chemicals only	0.00	-2.52	0.00	-2.52
Manufacturing - pharmaceuticals	0.00	-0.01	0.00	-0.01
Manufacturing - metals	0.00	-1.21	0.00	-1.21
Manufacturing - transport equipment	0.00	-0.83	0.00	-0.83
Manufacturing - electronics	0.00	-0.50	0.00	-0.50
Utilities	-0.01	0.00	0.00	-0.01
Waste & remediation	0.00	0.09	0.00	0.09
Wholesale	0.00	0.21	1.31	1.51
Land transport	0.00	0.00	0.79	0.79
Publishing & broadcasting	-0.01	-0.28	-0.27	-0.56
Telecoms	0.00	0.00	-0.13	-0.13
Computer related activity	0.27	0.00	0.00	0.27
Finance	-0.16	0.00	0.00	-0.16
Real estate	0.99	0.00	0.00	0.99
Professional services	0.57	1.00	0.00	1.57
Research & development	0.00	0.00	0.00	0.00
Business services	0.21	2.47	0.00	2.69
Employment activities	0.05	0.17	0.46	0.68
Public administration	0.42	0.00	0.00	0.42
Total	2.33	-8.54	2.16	-4.05

3.5 As can be seen by the tables above, based on the baseline run of the 2016 East of England Forecasting Model there will be a forecast loss of employment land and floorspace. This is mainly due to the large reduction in employment forecasted for the manufacturing sector.

3.6 This forecast is significantly different from the 2014 East of England Forecasting Model baseline projection as presented in the Employment Land Needs Assessment 2016. This assessment forecasted an increase of 1,055 B class jobs, with a floorspace requirement of 64,290sqm and a land requirement of 13 hectares over the period 2011-2036. The difference is mainly due to the different reporting timescales. The forecast in the Employment Land Needs Assessment 2016 used jobs data in the 2014 East of England Forecasting Model from a 2011 base date. If a 2014 base date is used in the 2014 model, employment projections for B class jobs are much more similar giving a total of -839 (2014-

2036)¹

Offshore Uplift Projection

- 3.7 The southern North Sea represents the largest market in the world for large-scale offshore wind farms. Offshore/onshore wind and oil and gas developments are estimated to be worth £50bn to the New Anglia economy over the next 10 years and the area is well placed to capitalise on this growth in renewable and low carbon sectors. Additional investment in wind energy – including the 6,000 km² East Anglia Array offshore windfarm development – is expected to significantly boost activity related to offshore renewables.
- 3.8 Lowestoft and Great Yarmouth are strategically placed to tap into this potential. Lowestoft is the closest port to the proposed East Anglia Offshore Array wind farm, which in total may provide up to 7.2GW of installed capacity. The first phase of this wind farm received planning consent in June 2014 and secured a Contract for Difference in February 2015. In November 2015 Scottish Power announced that the first phase would utilise the port of Lowestoft as its construction base and operations and maintenance base for the lifetime of the windfarm. This first phase will deliver 714MW of capacity. Another major project is the Galloper wind farm being lead by RWE. RWE also chose the port of Lowestoft as its construction base in November 2015. Lowestoft is also very close to a number of other offshore wind farms including:
- Dudgeon (consented – 402MW)
 - Greater Gabbard (operating – 504MW),
 - Gunfleet Sands I&II (operating – 173MW)
 - London Array (operating – 630MW)
 - Lynn and Inner Dowsing (operating – 194MW)
 - Race Bank (consented – 580MW)
 - Scroby Sands (operating – 60MW)
 - Sheringham Shoal (operating – 317MW)
- 3.9 The Employment Land Needs Assessment 2016 therefore included a scenario which focused on the employment benefits that could arise from the construction and ongoing maintenance of a number of new offshore wind developments that are planned to take

¹ The data for 2011-2013 in the Employment Land Needs Assessment 2016 would have included jobs numbers based on the results of the Business Register and Employment Survey and the Annual Population Survey rather than forecasted data. Data for an individual year for an individual sector can be subject to sampling error. Although the model seeks to compensate for this, it is apparent that the jobs numbers for business services and professional services in 2011 of the 2014 East of England Forecasting model are unusually low compared to numbers for 2010 and 2012. This results in a significant increase in jobs in these sectors recorded over the period 2011-2014. This indicates the jobs growth numbers and floorspace and land requirements reported in the Employment Land Needs Assessment 2016 for Waveney are likely to be overestimated.

place off the coast of East Anglia. The scenario specifically assessed the employment impacts associated with The East Anglia Zone, one of the world's largest wind farms, and the Galloper wind farm extension, given their proximity to the Suffolk coast and the study area in question (i.e. Ipswich and Waveney Economic Areas) and the combined scale of activity associated with these projects.

- 3.10 The assessment identified the potential for a peak indirect employment from these developments of 658 split across the manufacturing, construction, utilities and business services sectors as show in the table below.

Table 8 - Direct Jobs from Offshore Wind

Employment by sector	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Manufacturing - general	72	86	135	130	12	19	200	240	406	412	241	374	205	201	198	194
Utilities				11	11	29	29	28	28	57	56	112	110	135	160	157
Construction	5	34	42	61	60	0	13	95	117	183	192	100	174	85	0	0
Business services				1	1	3	3	3	3	6	6	12	12	15	18	17
Total	77	120	177	203	84	51	244	366	554	658	495	598	501	437	375	368

- 3.11 These direct jobs were then inputted into the 2014 East of England Forecasting Model to calculate indirect and induced jobs. This generates an additional 1207 jobs over and above the 2014 baseline run.

- 3.12 It has not been possible to input the direct jobs into the 2016 East of England Forecasting Model. However, the uplifts per sector over and above the 2014 baseline model have been applied to the 2016 baseline run. The total jobs numbers resulting from this are shown in the table below.

Table 9 – EEFM Offshore Uplift Projection Jobs

	Sector	Change in Jobs 2014-2036
Jobs Requiring Employment Land	Manufacturing	-1751
	Utilities	170
	Waste and Remediation	7
	Wholesale and Land Transport	189
	Publishing and Broadcasting	-69
	Telecoms and Computers	81
	Finance	-92
	Real Estate	311
	Professional and Business Services	827
	Research and Development	-1
	Employment Activities	141
	Public Admin	239
	Total B Use Class Jobs	51
Jobs Not Requiring Employment Land	Agriculture	-176
	Mining & quarrying	-20
	Construction ²	2231
	Retail	335
	Water & air transport	15
	Accommodation & food services	1354
	Education	-442
	Health & care	1115
	Arts & entertainment	149
	Other services	43
	Total Non-B Use Class Jobs	4375
	Total Jobs	4604

² 20% of construction jobs under this scenario are expected to require B class use floorspace.

3.13 The tables below convert these jobs forecasts into floorspace requirements and land requirements following the methodology above.

Table 10- EEFM Offshore Uplift Projection Floorspace Requirements

Sector	Change in Jobs 2014-2036	Floorspace Requirements (sqm)							
		B1a General Office	B1a Business Park	B1a Call Centre	B1b Science Park	B1b Research and Dev	B1c/B2	B8	Total
Manufacturing - food	-905	0	0	0	0	0	-19447	0	-19447
Manufacturing - general	-21	0	0	0	0	0	-453	0	-453
Manufacturing - chemicals only	-410	0	0	0	0	0	-8818	0	-8818
Manufacturing - pharmaceuticals	-1	0	0	0	0	0	-20	0	-20
Manufacturing - metals	-197	0	0	0	0	0	-4242	0	-4242
Manufacturing - transport equipment	-135	0	0	0	0	0	-2903	0	-2903
Manufacturing - electronics	-82	0	0	0	0	0	-1765	0	-1765
Utilities	170	0	981	747	0	0	0	0	1728
Waste & remediation	7	0	0	0	0	0	327	0	327
Wholesale	91	0	0	0	0	0	1290	4689	5978
Land transport	99	0	0	0	0	0	0	2831	2831
Publishing & broadcasting	-69	-48	0	0	0	0	-982	-533	-1562
Telecoms	-10	-12	0	0	0	0	0	-255	-267
Computer related activity	90	373	627	80	0	0	0	0	1080
Finance	-92	-578	0	0	0	0	0	0	-578
Real estate	311	3854	360	0	0	0	0	0	4213
Professional services	386	1594	1339	34	3809	744	0	0	7520
Research & development	-1	-1	-1	0	-4	-10	0	0	-15
Business services	440	545	203	349	11001	121	0	0	12219
Employment activities	141	251	32	12	247	39	532	1243	2357
Public administration	239	2004	0	0	0	0	0	0	2004
Construction	2231	0	0	0	0	0	21105	0	21105
Total	2282	7982	3542	1222	15053	894	-15377	7975	21291

Table 11 - EEFM Offshore Land Requirements

Sector	Land Requirements (Hectares)			
	B1a	B1bc/ B2	B8	Total
Manufacturing - food	0.00	-5.56	0.00	-5.56
Manufacturing - general	0.00	-0.13	0.00	-0.13
Manufacturing - chemicals only	0.00	-2.52	0.00	-2.52
Manufacturing - pharmaceuticals	0.00	-0.01	0.00	-0.01
Manufacturing - metals	0.00	-1.21	0.00	-1.21
Manufacturing - transport equipment	0.00	-0.83	0.00	-0.83
Manufacturing - electronics	0.00	-0.50	0.00	-0.50
Utilities	0.43	0.00	0.00	0.43
Waste & remediation	0.00	0.09	0.00	0.09
Wholesale	0.00	0.37	2.34	2.71
Land transport	0.00	0.00	1.42	1.42
Publishing & broadcasting	-0.01	-0.28	-0.27	-0.56
Telecoms	0.00	0.00	-0.13	-0.13
Computer related activity	0.27	0.00	0.00	0.27
Finance	-0.14	0.00	0.00	-0.14
Real estate	1.05	0.00	0.00	1.05
Professional services	0.74	1.30	0.00	2.04
Research & development	0.00	0.00	0.00	0.00
Business services	0.27	3.18	0.00	3.45
Employment activities	0.07	0.23	0.62	0.93
Public administration	0.50	0.00	0.00	0.50
Construction	0.00	6.03	0.00	6.03
Total	3.19	0.16	3.99	7.34

3.14 Under this scenario there is a modest requirement of 7.34 hectares for new employment land.

4 Experian Job Forecasts

4.1 As part of the work on the Ipswich Policy Area and Waveney Strategic Housing Market Assessment undertaken by Peter Brett Associates, Experian were commissioned to provide economic forecasts to test whether there would need to be an uplift in housing requirements to meet jobs demand.

- 4.2 For Waveney, two scenarios were considered, a baseline scenario and an offshore scenario (using the same assumptions as those used in the East of England Forecasting Model described above).

Baseline Scenario

- 4.3 The baseline scenario is based on Experian's December 2016 run. The model predicts that over the period 2014 to 2036 there will be 4,000 new jobs created in Waveney which is slightly higher than the EEFM baseline. Similar to the EEFM baseline, the table below indicates there will be a decline in jobs requiring B class floorspace.

Table 12 - Experian Baseline Jobs Forecast

	Sector	Change in Jobs 2014-2036
Jobs Requiring Employment Land	Manufacturing	-1200
	Utilities	100
	Waste and Remediation	0
	Wholesale and Land Transport	400
	Publishing and Broadcasting	0
	Telecoms and Computers	100
	Finance	0
	Real Estate	0
	Professional and Business Services	700
	Research and Development	0
	Employment Activities	0
	Public Admin	-300
	Total B Use Class Jobs	-100
Jobs Not Requiring Employment Land	Agriculture	100
	Mining & quarrying	0
	Construction	600
	Retail	400
	Water & air transport	0
	Accommodation & food services	1300
	Education	300
	Health & care	1300
	Arts & entertainment	300
	Other services	-200
	Total Non-B Use Class Jobs	4100
	Total Jobs	4000

4.4 The tables below convert these jobs forecasts into floorspace requirements and land requirements following the methodology above.

Table 13 - Experian Baseline Floorspace Requirements

Sector	Change in Jobs 2014-2036	Floorspace Requirements (sqm)							
		B1a General Office	B1a Business Park	B1a Call Centre	B1b Science Park	B1b Research and Dev	B1c/B2	B8	Total
Manufacturing - food	-100	0	0	0	0	0	-2150	0	-2150
Manufacturing - general	-1000	0	0	0	0	0	-21500	0	-21500
Manufacturing - chemicals only	0	0	0	0	0	0	0	0	0
Manufacturing - pharmaceuticals	0	0	0	0	0	0	0	0	0
Manufacturing - metals	-200	0	0	0	0	0	-4300	0	-4300
Manufacturing - transport equipment	0	0	0	0	0	0	0	0	0
Manufacturing - electronics	0	0	0	0	0	0	0	0	0
Utilities	200	0	1155	880	0	0	0	0	2035
Waste & remediation	0	0	0	0	0	0	0	0	0
Wholesale	0	0	0	0	0	0	0	0	0
Land transport	400	0	0	0	0	0	0	11497	11497
Publishing & broadcasting	0	0	0	0	0	0	0	0	0
Telecoms	0	0	0	0	0	0	0	0	0
Computer related activity	100	413	693	88	0	0	0	0	1194
Finance	0	0	0	0	0	0	0	0	0
Real estate	0	0	0	0	0	0	0	0	0
Professional services	600	2475	2079	53	5914	1155	0	0	11675
Research & development	0	0	0	0	0	0	0	0	0
Business services	200	248	92	158	4998	55	0	0	5552
Employment activities	0	0	0	0	0	0	0	0	0
Public administration	-300	-1144	0	0	0	0	0	0	-1144
Total	-100	1991	4019	1179	10912	1210	-27950	11497	2859

Table 14 - Experian Baseline Land Requirements

Waveney	Land Requirements (Hectares)			
	B1a	B1b/c B2	B8	Total
Manufacturing - food	0.00	-0.61	0.00	-0.61
Manufacturing - general	0.00	-6.14	0.00	-6.14
Manufacturing - chemicals only	0.00	0.00	0.00	0.00
Manufacturing - pharmaceuticals	0.00	0.00	0.00	0.00
Manufacturing - metals	0.00	-1.23	0.00	-1.23
Manufacturing - transport equipment	0.00	0.00	0.00	0.00
Manufacturing - electronics	0.00	0.00	0.00	0.00
Utilities	0.51	0.00	0.00	0.51
Waste & remediation	0.00	0.00	0.00	0.00
Wholesale	0.00	0.00	0.00	0.00
Land transport	0.00	0.00	5.75	5.75
Publishing & broadcasting	0.00	0.00	0.00	0.00
Telecoms	0.00	0.00	0.00	0.00
Computer related activity	0.30	0.00	0.00	0.30
Finance	0.00	0.00	0.00	0.00
Real estate	0.00	0.00	0.00	0.00
Professional services	1.15	2.02	0.00	3.17
Research & development	0.00	0.00	0.00	0.00
Business services	0.12	1.44	0.00	1.57
Employment activities	0.00	0.00	0.00	0.00
Public administration	-0.29	0.00	0.00	-0.29
Total	1.80	-4.52	5.75	3.02

- 4.5 As can be seen by the tables above, based on the baseline run of the December 2016 Experian Model there will be a small forecast need for new employment land and floorspace. Similar to the EEFM baseline scenario the need for employment land is limited by the projected large decrease in employment in manufacturing.

Offshore Scenario

- 4.6 The Experian Offshore Scenario uses the same direct job inputs as described above under the EEFM offshore scenario. The total jobs numbers resulting from this are shown in the table below. This scenario forecast a total jobs growth of 5,000 new jobs over the period 2014-2036. As with the above scenarios the greatest increase is within sectors not requiring B class employment land.

Table 15 - Experian Offshore Scenario Jobs Growth

	Sector	Change in Jobs 2014-2036
Jobs Requiring Employment Land	Manufacturing	-1100
	Utilities	300
	Waste and Remediation	0
	Wholesale and Land Transport	500
	Publishing and Broadcasting	0
	Telecoms and Computers	100
	Finance	0
	Real Estate	0
	Professional and Business Services	1100
	Research and Development	0
	Employment Activities	0
	Public Admin	-400
	Total B Use Class Jobs	500
Jobs Not Requiring Employment Land	Agriculture	200
	Mining & quarrying	0
	Construction ³	700
	Retail	300
	Water & air transport	0
	Accommodation & food services	1400
	Education	300
	Health & care	1500
	Arts & entertainment	300
	Other services	-200
	Total Non-B Use Class Jobs	4500
	Total Jobs	5000

³ 20% of construction jobs under this scenario are expected to require B class use floorspace.

4.7 The tables below convert these jobs forecasts into floorspace requirements and land requirements following the methodology above.

Table 16- Experian Offshore Floorspace Requirements

Sector	Change in Jobs 2014-2036	Floorspace Requirements (sqm)							
		B1a General Office	B1a Business Park	B1a Call Centre	B1b Science Park	B1b Research and Dev	B1c/B2	B8	Total
Manufacturing - food	-100	0	0	0	0	0	-2150	0	-2150
Manufacturing - general	-800	0	0	0	0	0	-17200	0	-17200
Manufacturing - chemicals only	0	0	0	0	0	0	0	0	0
Manufacturing - pharmaceuticals	0	0	0	0	0	0	0	0	0
Manufacturing - metals	-200	0	0	0	0	0	-4300	0	-4300
Manufacturing - transport equipment	0	0	0	0	0	0	0	0	0
Manufacturing - electronics	0	0	0	0	0	0	0	0	0
Utilities	300	0	1733	1320	0	0	0	0	3053
Waste & remediation	0	0	0	0	0	0	0	0	0
Wholesale	0	0	0	0	0	0	0	0	0
Land transport	500	0	0	0	0	0	0	14372	14372
Publishing & broadcasting	0	0	0	0	0	0	0	0	0
Telecoms	0	0	0	0	0	0	0	0	0
Computer related activity	100	413	693	88	0	0	0	0	1194
Finance	0	0	0	0	0	0	0	0	0
Real estate	0	0	0	0	0	0	0	0	0
Professional services	900	3713	3119	79	8870	1733	0	0	17513
Research & development	0	0	0	0	0	0	0	0	0
Business services	200	248	92	158	4998	55	0	0	5552
Employment activities	0	0	0	0	0	0	0	0	0
Public administration	-400	-1525	0	0	0	0	0	0	-1525
Construction	700	0	0	0	0	0	6622	0	6622
Total	500	2848	5636	1646	13869	1788	-17028	14372	23129

Table 17 - Experian Offshore Land Requirements

Sector	Land Requirements (Hectares)			
	B1a	B1bc/ B2	B8	Total
Manufacturing - food	0.00	-0.61	0.00	-0.61
Manufacturing - general	0.00	-4.91	0.00	-4.91
Manufacturing - chemicals only	0.00	0.00	0.00	0.00
Manufacturing - pharmaceuticals	0.00	0.00	0.00	0.00
Manufacturing - metals	0.00	-1.23	0.00	-1.23
Manufacturing - transport equipment	0.00	0.00	0.00	0.00
Manufacturing - electronics	0.00	0.00	0.00	0.00
Utilities	0.76	0.00	0.00	0.76
Waste & remediation	0.00	0.00	0.00	0.00
Wholesale	0.00	0.00	0.00	0.00
Land transport	0.00	0.00	7.19	7.19
Publishing & broadcasting	0.00	0.00	0.00	0.00
Telecoms	0.00	0.00	0.00	0.00
Computer related activity	0.30	0.00	0.00	0.30
Finance	0.00	0.00	0.00	0.00
Real estate	0.00	0.00	0.00	0.00
Professional services	1.73	3.03	0.00	4.76
Research & development	0.00	0.00	0.00	0.00
Business services	0.12	1.44	0.00	1.57
Employment activities	0.00	0.00	0.00	0.00
Public administration	-0.38	0.00	0.00	-0.38
Construction	0.00	1.89	0.00	1.89
Total	2.53	-0.39	7.19	9.33

4.8 Under this scenario there is a modest requirement of 9.33 hectares for new employment land.

5 Past Completion Rates

- 5.1 The table below shows the net (includes losses of employment land to other uses) area of land developed for B class uses per year in the District since 2001.

Table 18 - Past Completion Rates

Year	Land Use					Total
	B1A	B1B	B1C	B2	B8	
2001/02	0.22	0.00	0.44	-0.08	0.65	1.23
2002/03	0.30	0.00	-0.16	2.22	0.16	2.52
2003/04	-0.01	0.00	1.28	-0.02	-4.78	-3.53
2004/05	0.01	0.00	0.21	3.21	1.13	4.56
2005/06	0.86	0.00	0.24	-5.02	3.66	-0.26
2006/07	0.31	0.00	-0.98	-1.13	4.49	2.69
2007/08	0.83	-0.01	0.00	2.67	5.72	9.21
2008/09	0.66	0.01	0.38	1.61	4.36	7.02
2009/10	1.18	0.00	0.09	0.00	0.09	1.36
2010/11	1.14	0.00	0.38	1.52	1.15	4.19
2011/12	2.09	0.00	0.21	5.12	2.77	10.19
2012/13	0.11	0.00	0.26	4.69	1.03	6.09
2013/14	0.16	0.00	-0.21	0.02	-0.22	-0.25
2014/15	1.11	0.00	0.12	0.33	1.21	2.77
2015/16	1.51	0.00	0.87	1.22	1.67	5.27
Total	10.48	0.00	3.13	16.36	23.09	53.06
Average Per Year	0.70	0.00	0.21	1.09	1.54	3.54

- 5.2 Over the last 15 years there has been 53.06 hectares of land developed for employment uses. This equates to an average of 3.54 hectares a year. If the trend observed over the last 15 years was continued over the 22 year plan period there would be a need for 77.8 hectares of employment land.
- 5.3 Vacancy rates across industrial estates in Waveney were only 14.3% of units and 7% of total floorspace in April 2015. These percentages are not far off what is considered to be normal in a healthy market. This suggests that the net increases in land development above have not resulted in vacant premises elsewhere in the District.
- 5.4 The land areas associated with new employment developments may not always reflect typical plot ratios, particularly where the new development is a bespoke development for a specific operator or the development is an extension to an existing site. Another way of considering trends is to look at the net floorspace developed over the last 15 years and

convert it to land area using an average plot ratio of 0.4. Over the last 15 years 91,490sqm of employment floorspace has been completed. This equates to an average of 6,099sqm a year. If this trend is continued over the 22 year plan period, there would be a need for 134,178sqm of floorspace. If this is converted to a land requirement using the 0.4 plot ratio, the land requirement would be 33.54 hectares.

6 Analysis

- 6.1 The projections for new employment land need based on the economic forecasts provided by the East of England Forecasting Model only identify modest requirements of up to 9 hectares of need. This is mainly due to the significant decreases in employment in manufacturing forecasted by the models.
- 6.2 The trend of decline in manufacturing jobs is not new and has been experienced in the last 15 years. Over this period there has been a decline of 2,900 jobs in the manufacturing sector in Waveney. Over this same period there has been no overall increase in job numbers in the District. However, there has been 91,490 sqm of B-class floorspace completed using 53 hectares of land. This suggests that a decrease in jobs does not necessarily translate into relative loss of employment space.
- 6.3 The decline in manufacturing jobs is partly due to increased efficiency and automation which doesn't necessarily mean a need for less space. The methodology above for converting jobs into employment space already discounts losses by 50% to take this into account. However, the evidence above on past completion rates suggests that this discount is not sufficient. Furthermore, where manufacturing space is surplus to requirements it may not be directly replaced by B class uses. In some cases (particularly where there are specialist buildings) it won't be viable for another B class use to use that space. Additionally, some industrial buildings are located in areas where other uses would be more desirable.
- 6.4 Considering the above, the table below provides a sensitivity analysis of employment land needs based on the employment forecasts, if losses are removed entirely from the calculation. This assumes that all losses in manufacturing jobs will either not result in surplus floorspace, or if it does, it won't be re-used or redeveloped for B class uses.

Table 19 - Sensitivity Analysis of Translation of Employment Forecasts to Floorspace

	EEFM Baseline	EEFM Offshore	Experian Baseline	Experian Offshore
Floorspace (sqm)	28,992	61,362	31,953	48,304
Land Requirement (ha)	9.02	18.93	11.30	16.46

- 6.5 The table above shows a significant increase in need for floorspace and land. However, this is still far short of past trends in a period with no employment growth.

7 Conclusions

- 7.1 The analysis above shows that over the last 15 years there has been a significant amount of employment land development despite no overall increase in jobs in the District. This suggests there is at least some need for new employment space in the absence of any forecasted jobs growth.
- 7.2 The various scenarios of employment forecasts identified above, range from 3,431 jobs to 5,000 new jobs over the period 2014-2036. In terms of jobs requiring employment land the range is between -741 jobs and 500 new jobs. To get the best chance of increasing employment in Waveney, the Local Plan should plan for the higher jobs target of 5,000 new jobs which includes the uplift for the potential benefits from the expansion of offshore wind in the southern North Sea as modelled by Experian. This scenario results in an increase of 500 new jobs requiring employment land. The results above suggest that this will result in a need for at least 9 hectares of employment floorspace.
- 7.3 As discussed above, this figure is significantly below past trends in a time period where there was no overall employment growth. Even with the sensitivity analysis which removed the losses of manufacturing space entirely from the employment land calculation, the estimated need is still far short of past trends.
- 7.4 There is no guarantee that past trends will continue into the future. However, two independent economic forecasting organisations suggest there will be employment growth over the next 20 years. This indicates that there should be a greater need in the future for employment land than there has been in the last 15 years (a period of no employment growth).

- 7.5 Considering the above it is considered that in order to ensure there is sufficient employment land available, sufficient land should be allocated in the Local Plan to meet the annual average take up experienced over the last 15 years. As detailed above this would indicate a need of 33.54 hectares of employment land. However, given that the 5,000 new jobs scenario also includes employment growth in sectors requiring employment land it is considered necessary to uplift past trends to take into account potential future growth. It is therefore suggested that an appropriate employment land requirement of the Local Plan to plan for is **43 hectares** (33.54 hectares from past trends plus the 9.33 additional hectares required to meet a B class jobs growth of 500 jobs).

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