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**MULTIMODAL STUDY**

**A453 NOTTINGHAM TO JUNCTION 24**

**WORKING PAPER NO 8**

**Planning Data for Future Years**

**Interim Report**

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## A453 MULTI MODAL STUDY - DISCUSSION PAPER ON FUTURE YEAR PLANNING DATA

### INTRODUCTION

A critical element of the Multi Modal Study process is the transport modelling. To be effective this must take account of the various data sources in evolving a range of strategic options for the future transport of the A453 Study Area. A fundamental input required for this process is for the team to be able to reflect as accurately as possible future land use changes in and around the Study Area. This can then be accounted for through the modelling process and future strategic transport options that come forward for testing will be based on a robust and defensible methodology. Clearly, this is not a simple task as the timetable for the study implies the need to address these factors over a 20 year period which extends well beyond the normal planning periods of 5 years for a Local Plan, and perhaps 10 years for a Structure Plan. The team have therefore had to develop a methodology to enable analysis to progress beyond current thinking.

In addressing the future year planning and land use projections for the A453 Multi Modal Study Area the timescales have been broken down into two distinct periods, these being:

- 2000- 2011; and
- 2011 – 2021

These provide a picture of the level of development land available within the Study Area over this timeframe. This does not allow for the amount of this development which is actually likely to take place. This data is therefore compared and evaluated against the inputs from the consultations carried out with the Local Planning Authorities to provide, as far as is possible, a more realistic picture of the levels of development likely to occur over this period.

### **2011 - 2021**

In order to address the levels and locations of development over the longer term period, the team have taken as a basis the data produced by the DETR in the form of NTEM Tempo. This provides projections at a local authority district level for this period in relation to changes in:

- Population;
- Households;
- Workers; and,
- Jobs.

For the purposes of the analysis we have concentrated on the households and jobs categories. These can most easily be related back to the extrapolation of Housing and Employment statistics in which we are interested.

Whilst these projections do provide a picture of future change in the area, they are nationally-based and therefore do not fully provide for the local perspective. Because of this, the team have chosen to apply a comparison of this data with the projections in the Regional Planning Guidance (RPG) and the extrapolated figures from the County Structure plans. This work has been the subject of considerable debate with local officers and further collaboration is ongoing.

### **DATA ANALYSIS**

As described above the analysis has been undertaken in two stages and the results of this are outlined in this section of the report.

#### **Stage One - 2000-2011**

The County Councils' forecasts up to 2011 are provided in the form of targets for the period 1991 to 2011. These are shown for housing and employment on Tables 1 & 2.

**Table 1 : Projected Housing Figures**

<b>DISTRICT</b>	<b>HOUSING TARGETS</b>	<b>HOUSES PER ANNUM</b>
<b>Derbyshire</b>	69 300	3 465
Derby	15 000	750
Erewash	6 300	315
South Derbyshire	11 600	580
<b>Leicestershire</b>	67 775	3 388
North West Leicestershire	7 387	369

<b>Nottinghamshire</b>	69 250	3 462
Broxtowe	5 500	275
Nottingham	8 000	400
Rushcliffe	14 400	720

Source – County Structure Plans / RPG

**Table 2 : Projected Employment Figures**

<b>DISTRICT</b>	<b>EMPLOYMENT LAND (HA)</b>	<b>EMPLOYMENT LAND PER ANNUM (HA)</b>
<b>Derbyshire</b>	1 295	64.75
Derby	356	18.25
Erewash	100	5
South Derbyshire	150	7.5
<b>Leicestershire</b>	1 346	67.3
North West Leicestershire	426	21.3
<b>Nottinghamshire</b>	1 770	88.75
Broxtowe	115	5.7
Nottingham	160	8
Rushcliffe	160	8

Source – County Structure Plans

These figures provide a picture of development allocations over the 20 year period up to 2011. However, in order to produce realistic figures for the period 2000 to 2011 further analysis is required. We need to know the following:

- The level of the above allocations that have been taken up and those that remain; and,
- the level of the remaining allocations likely to be developed between 2000 and 2011.

#### **Allocations Remaining Undeveloped at 2000**

This analysis has been taken from the relevant local plans and the consultations with Local Authority Officers. To arrive at the figures as shown below, the completions for each district have been identified to the year 2000. The total completions between 1991 and 2000 have then been taken away from the overall County forecasts as outlined in Table 1 above to provide the levels development remaining to meet those allocations. These figures are shown in Table 3 below.

**Table 3 : Remaining Allocations**

<b>DISTRICT</b>	<b>REMAINING HOUSING (Number of Houses)</b>	<b>REMAINING EMPLOYMENT (Ha)</b>
<b>Derbyshire</b>		
Derby	4 360	308.79
Erewash	2 664	50
South Derbyshire	5 974	Data Awaited
<b>Leicestershire</b>		
North West Leicestershire	3 485	229

<b>Nottinghamshire</b>		
Broxtowe	3 272	77.2
Nottingham	2 965	99.0
Rushcliffe	9629	139.7

Source – Consultations / Local plan figures

### Level of Likely Development 2000 - 2011

Following the identification of the levels of take up of the above allocations, further consultation with Local Authority Officers has resulted in an analysis of the levels of remaining land that can realistically expect to be developed over the period 2000-2011. It should be noted that whilst the figures in the tables above relate to the Districts as a whole, those for housing and employment in tables 5 and 6 relate only to those sites within or having an influence upon the A453 study area. This analysis provides an additional level of realism for the determination of future development levels.

In addressing this information we have concentrated on the sites that are large enough to have a significant impact in traffic terms. As a basis for this we have taken the table contained in Annexe A of Planning Policy Guidance (PPG) Note 13 – Transport which relates to those developments which would require a traffic impact assessment. The thresholds used are set out in Table 4 below.

**Table 4 : Development Thresholds**

<b>USE</b>	<b>THRESHOLD FOR KEY DEVELOPMENT (Gross Floorspace)</b>
Food Retail	1,000m <sup>2</sup>
Non Food Retail	1,000m <sup>2</sup>
Cinemas and Conference Facilities	1,000m <sup>2</sup>
D2 including Leisure	1,000m <sup>2</sup>
B1 Including Offices	2,500m <sup>2</sup>
B2 Transport Assessments Threshold	5,000m <sup>2</sup>
B8 Transport Assessments Threshold	10,000m <sup>2</sup>
Housing	100 dwellings
Hospitals	2,500m <sup>2</sup>
Higher & Further Education	2,500m <sup>2</sup>
Stadia	1,500 seats

Source – PPG13 - Transport

Tables 5 and 6 below show those sites likely to come forward for housing and employment development within the 2000-2011 timeframe.

**Table 5 : Likely Housing Developments**

<b>DISTRICT</b>	<b>SITES</b>	<b>HOUSE NUMBERS</b>
<b>Derbyshire</b>		
South Derbyshire	Aston Hall Hospital	Yet to be decided
	Grove Hospital	Yet to be decided
	Hilton	680
	Sites Related to Deby (as yet unidentified)	Yet to be decided
	<b>Total</b>	<b>2 300</b>

DISTRICT	SITES	HOUSE NUMBERS
Derby	Crewton Allotments	250
	<b>Total</b>	<b>250</b>
Erewash	Former Westernmere School, Breaston	110
	Nottingham Road, Long Eaton	100
	<b>Total</b>	<b>210</b>
<b>Leicestershire</b>		
North West Leicestershire	Park Lane, Castle Donington	200
	Station Road, Castle Donington	84
	<b>Total</b>	<b>284</b>
<b>Nottinghamshire</b>		
Broxtowe	Central Ordnance Depot , Attenborough	455
	Answorth	180
	S.of Queens Rd, Beeston	110
	E.of Chilwell Lane, Bramcote	110
	Giltbrook	190
	Ilkeston Rd/Stapleford Rd	245
	N. of Bilborough College	120
	E. of Main Road,Nuthall	750
	<b>Total</b>	<b>2 160</b>
	Nottingham	Trent Lane area
Turners Bakery Site Hucknall Rd		238
West of Faraday Road		158
Haydn Road		102
Clifton West		235
Clifton South		168
Mapperley Hospital, Porchester Road		148
Hooleys Garage site, Derby Road		159
<b>Total</b>		<b>1 458</b>
Rushcliffe		Bunny Brickworks
	Colliery Site, Cotgrave	600
	Gotham Rd North, East Leake	230
	RAF Newton	1500
	Main Rd/The Paddocks Radcliffe	95
	Kegworth Rd, Gotham	90
	Camelot St/Pasture Lane, Ruddington	290
	West Bridgford (Various)	1970
	Clifton Pastures	1000
	Land North of Ruddington	1400
	Melton Rd Triangle	550
	Gamston Gateway	1500
	Land north of Bingham	1500
Nottingham Road	600	
<b>Total</b>	<b>11 525</b>	

**Table 6 : Likely Employment Developments**

DISTRICT	SITES	HECTARES
<b>Derbyshire</b>		
South Derbyshire	Willington Power Station	Yet To be decided
	<b>Total</b>	<b>Yet To be decided</b>
<b>Derby</b>		
	Wyvern Business Park	4.1
	Stoney Cross Industrial Park	3.27
	Alvaston TEC	1.4
	Nottingham Road, Spondon	2.61
	Pride Park	29.34
	Former Adtranz Works	18.5
	Raynesway West	4
	Saynesway East & Acordis	65
	Chaddeston Sidings, South	28
	Nottingham Road	1.1
	Station Road	2.1
	Nottingham Road	2
	<b>Total</b>	<b>161.42</b>
<b>Erewash</b>		
	Waverley Street, Long Eaton	0.65
	Longmoor Lane, Breaston	10.0
	Bridgefield, Breaston	0.75
	Meadow Lane, Long Eaton	3.70
	<b>Total</b>	<b>15.1</b>
<b>Leicestershire</b>		
<b>North West Leicestershire</b>		
	Newbold Rd, Castle Donington	1.2
	Trent Lane, Castle Donington	4.9
	Willow Farm, Castle Donington	38.4
	Citrus Grove, Kegworth	6.10
	Long Lane, Kegworth	1.2
	Side key, Kegworth	1.8
	Pegasus Business Park, EM Airport	26
	Former Power Station, Castle Donington	80
	<b>Total</b>	<b>159.6</b>
<b>Nottinghamshire</b>		
<b>Broxtowe</b>		
	Ordnance Depot, Attenborough	3.2
	Siemens Site, Beeston, Rylands	4.0
	Bartons Bus Depot, Chilwell	2.2
	Land west of Eastwood Hall	14.8
	Rear of South St, Eastwood	2.0
	Land off Newmanleys Rd, Eastwood	2.0
	Nottingham Road, Giltbrook	2.0
	Engine Lane, Moor Green	2.8

DISTRICT	SITES	HECTARES
	North East of Main Rd, Watnall	13.0
	<b>Total</b>	<b>46</b>
Nottingham	Wilkinson St/Radford Rd	4.3
	Bull Close Rd	2.1
	Harrimans Lane	18.2
	Hucknall Rd/Southglade Rd	3.5
	Sneinton Railway Land	2.0
	Former Bold Street Tip	4.2
	Wilford Power Station	5.4
	Highfields Science Park	6.1
	Chilwell Dam Farm	26.6
	Boot Island site	4.6
	<b>Total</b>	<b>77</b>
Rushcliffe	Bunny Brickworks	2.7
	Cotgrave Colliery	7.7
	Hollygate Lane, Cotgrave	1.9
	Hill Road Gotham	3.2
	Coach Gap Lane, Langar	20.5
	Landmere Lane, West Bridgford	66
	Chapel Lane, Bingham	72.9
	Pasture lane, Ruddington	3.5
	Former Ruddington Ordnance Depot	14.6
	<b>Total</b>	<b>193</b>

Source – Local Authority Consultations

The analysis outlined above provides a very clear picture of the likely development to take place in the A453 study area over the period 2000 – 2011. The consultations with the local planning authorities has been critical in adding a further level of reality to the allocations and providing the team with the most accurate data possible.

## Stage Two - Development Projections 2011-2021

In attempting to address this longer term period the team have taken as a start point the national projections in the form of NTEM Temprow data. The projections for the area are outlined on Table 7. These figures compare the district data for the study area with that at a national and county level. For the purposes of this analysis 2011 is taken as the base level with projections forward to 2021.

Table 7 : NTEM Temprow Data

<b>TEMPROW DATA 2011 - 2021</b>				
<b>NOTTINGHAMSHIRE</b>				
<b>BASE YEAR DATA: 2011</b>				
	<b>Population</b>	<b>Households</b>	<b>Workers</b>	<b>Jobs</b>
National (GB)	58792858	26101258	25718928	25718929
East Midland	4398453	1909627	1988439	1934494
Nottinghamshire	1071387	471996	459881	465466
Broxtowe	109349	49290	50597	34976
Nottinghamshire	275485	118100	105515	169751
Rushcliffe	119207	53379	58448	42229
<b>FUTURE YEAR DATA: 2021</b>				
	<b>Population</b>	<b>Households</b>	<b>Workers</b>	<b>Jobs</b>
National (GB)	59396834	27845076	25456113	25456108
East Midland	4519566	2057599	2018957	1965987
Nottinghamshire	1089593	504195	460790	466377
Broxtowe	109497	51987	48897	33957
Nottingham	264257	119568	103889	167861
Rushcliffe	131897	61871	63474	45770
<b>LEICESTERSHIRE</b>				
<b>BASE YEAR DATA: 2011</b>				
	<b>Population</b>	<b>Households</b>	<b>Workers</b>	<b>Jobs</b>
National (GB)	58792858	26101258	25718928	25718929
East Midland	4398453	1909627	1988439	1934494
Leicestershire	976270	419089	454365	463859
North West Leicestershire	89671	39641	42063	43434
<b>FUTURE YEAR DATA: 2021</b>				
	<b>Population</b>	<b>Households</b>	<b>Workers</b>	<b>Jobs</b>

National (GB)	59396834	27845076	25456113	25456108
East Midland	4519566	2057599	2018957	1965987
Leicestershire	998500	453292	464553	474435
North West Leicestershire	91700	42914	43064	44366
<b>DERBYSHIRE</b>				
<b>BASE YEAR DATA: 2011</b>				
	<b>Population</b>	<b>Households</b>	<b>Workers</b>	<b>Jobs</b>
National (GB)	58792858	26101258	25718928	25718929
East Midland	4398453	1909627	1988439	1934494
Derbyshire	1003944	439092	453657	420182
Derby	239772	102997	105357	124281
EreWash	109954	48514	51470	39126
South Derbyshire	87285	36742	41505	27479
<b>FUTURE YEAR DATA: 2021</b>				
	<b>Population</b>	<b>Households</b>	<b>Workers</b>	<b>Jobs</b>
National (GB)	59396834	27845076	25456113	25456108
East Midland	4519566	2057599	2018957	1965987
Derbyshire	1026003	473930	462082	428490
Derby	243449	110815	108780	128198
Erewash	109554	51620	50766	38519
South Derbyshire	94116	41094	44427	29339

Source - DETR

### Comparison of Tempro Data with RPG and County Projections

The data outlined in Table 7 above reflects the national projections for the Counties and Districts that make up the study area. It is essential to the modelling process that these figures are clarified further through comparison with more detailed information at the local level. Following consultations with relevant planning officers, the team has developed with EMRLGA and Constituent County Councils, an approach to comparing the projections of the Tempro data with those of the Regional Planning Guidance, and the County Council projections. The results of this are outlined on Tables 8 and 9 below.

**Table 8 : Comparison of Housing Projections**

Area	Housing Projections 2011-2021		
	Tempro (Pro rata)	RPG (Pro rata)	County (Remainder)
Derbyshire	34 838	26 000	Data Awaited
Derby	7 818	5 824	Data Awaited
Erewash	3 106	2 314	Data Awaited
South Derbyshire	4 352	3 250	Data Awaited

<b>Leicestershire</b>	34 203	32 000	Data Awaited
NW Leicestershire	3 273	3 264	Data Awaited
<b>Nottinghamshire</b>	32 199	25 000	9 250
Broxtowe	2 697	2 100	969
Nottingham	1 468	1 150	2351
Rushcliffe	8 492	6 600	1046

**Table 8 - Data Derivation**

#### Tempro Data

These figures are taken directly from the DETR Tempro projections for the region. They are on a pro rata basis ie they are based on a set of national growth rates. They reflect the amount of growth identified over the period 2011– 2021 in the context of national projections.

#### RPG Data

The data for the RPG in Table 8 has also been taken on a pro rata basis. Utilising the figures for the period 1996 – 2021 the rate of growth per year has been arrived at and then extrapolated forward for the period 2011 – 2021. As with initial analysis of the Tempro data, this has been discussed closely with key contacts from the RPG process. The RPG totals for the counties has been broken down to the district level reflecting the proportions of the Tempro data (Table 7). These being:

Derby 22.4%	Rushcliffe 26.4%	NW Leicestershire 10.2%
Erewash 8.9%	Broxtowe 8.4%	
	Nottingham 4.6%	

#### County Data

For comparative purposes both the Tempro data and the RPG data are taken on a pro rata basis. ie calculated on a specific set of national growth rates. However, this does not provide for the level of development already taken up through the County Structure plans. The County level figures set out below have been extrapolated from remaining growth to 2021 in the Draft Regional Planning Guidance, taking into account current County Council commitments up to 2011. These extrapolated figures are then split into the component districts according to the proportion of total households that each district will have from Counties total at 2011. A further assumption is the fact that the RPG intends growth to be concentrated in and around existing urban areas. By factoring in such information, it is therefore possible to create a more realistic picture of the level of the RPG growth that still remains over the period 2011 – 2021 based on the detailed local knowledge of local officers.

**Table 9 : Comparison of Employment Projections**

Employment Projections 2011-2021			
	Tempro	RPG	County
<b>Derbyshire</b>			
Derby	23.6	206.32	N/A
Erewash	3.6	48.9	N/A
South Derbyshire	11.2	Data awaited	N/A
<b>Leicestershire</b>			
NW Leicestershire	5.6	97.16	N/A
<b>Nottinghamshire</b>			
Broxtowe	- 6.17	43.68	N/A
Nottingham	-11.40	30.8	N/A
Rushcliffe	21.33	-74.62	N/A

**Table 9 - Data Derivation**

#### **Tempro Data**

The above employment figures extrapolated from the Tempro projections have been derived from job numbers. In order to translate these statistics into hectares, a low intensity use has been assumed (i.e B8 Storage and Distribution as defined by the Town & Country Planning Use Classes Order). This will illustrate a maximum land-take scenario. This assumption results in an equivalent of 60 square metres per job. It should be noted that these figures are being queried for accuracy with the DETR and a response is expected imminently.

#### **RPG Data**

In arriving at the RPG figure for future employment growth detailed discussions were held with those responsible for drawing up the document. It is a useful reminder to note that the Inspector's Report on the RPG states at para. 5.21 that:

*" over 5,600 ha of land is committed for employment development and that both the EMRLGA and EMDA are satisfied that this level of provision will be sufficient to meet their growth aspirations. "*

In addition, at para 5.19, it is stated that:

*" some 30-50% of employment growth will come from non-allocated sites "*.

In deriving the figures for Table 9 the figures for the development expected to take place over the period 2000–2011 (Table 6) have been subtracted from remaining land allocations between 2000 and 2011 (Table 3). This results in a figure that illustrates the level of the 2000–2011 allocations that will be taken forward into the post 2011 period to meet employment needs as per the RPG .

These figures have then been expanded by 30-50% to take into account the potential employment development that will come from non-allocated sites.

### **County Figures**

Unlike the comparable table for housing (Table 8), the RPG figures for employment have taken into account the County Allocations. This then nullifies the need for County Figures in the table.

### **Assumptions for Projections**

The RPG data provided at a county-level, has required further analysis to break it down into the constituent districts. Again this has formed part of the discussions with the key County and Local Authority Officers developing the RPG. The apparent differences between the Temprow projections and those from the RPG will require further consideration and ratification. The figures are currently being discussed by the RPG team based on a set of assumptions to include:

- 60% of housing on brownfield sites; and,
- Concentration of development in the Three Cities.

Whilst figures have not been provided at the District level by the Councils, officers have provided information on assumptions to guide allocation of future projections and this will be utilised in breaking down the figures. These assumptions can be summarised as follows:

#### **NW Leicestershire**

- No business park at Junction 24 of M1;
- No additional storage/distribution at EM airport unless linked to rail;
- Sustainable growth of airport activity;
- Growth in services and employment at Castle Donington;
- B1, B2 at the airport if sustainable; and,
- Expansion of the Derby/Nottingham green belt.

#### **South Derbyshire**

- Possible development at Aston Hall hospital, Grove Hospital;
- Willington Power Station – Major investment site;
- No support for growth of Derby southwards; and,
- Sites to be allocated well related to Derby.

#### **Broxtowe**

- Little room for development without green belt encroachment;
- Possible housing/employment at Chetwynd Barrack, Attenborough as only possible major brownfield site; and,
- Road/rail interchange at Toton sidings – employment site possible.

