



# Baseline Conditions Report

JCS Submission  
January 2010  
Norfolk County Council



# Baseline Conditions Report

January 2010

Norfolk County Council

County Hall, Norwich





# Issue and revision record

<b>Revision</b>	<b>Date</b>	<b>Originator</b>	<b>Checker</b>	<b>Approver</b>	<b>Description</b>
A	28 January 2010	Sarah Taylor	Nick Haverson (NCC)	Gerry Kelly David Allfrey (NCC)	First Issue

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.



# Content

<b>Chapter</b>	<b>Title</b>	<b>Page</b>
	Issue and revision record	5
1.	Introduction	1
1.1	Geographical Extents	2
1.2	Benchmarking	3
2.	Overview and Context	6
2.1	Background	6
2.2	Future Context	8
2.3	Demographics	10
2.4	Transport	15
2.4.1	Links and Connectivity	15
2.4.2	Travel Choice	16
2.4.3	Travel Demand	20
2.5	Policy	21
2.5.1	National Guidance	21
2.5.2	Regional Guidance	22
2.6	Conclusions	24
3.	Highway Network	26
3.1	Introduction	26
3.2	Network Description	29
3.2.1	Trunk Roads: the A11 and A47	29
3.2.1.1	Link Standards	29
3.2.1.2	Junction Standards	30
3.2.1.3	Traffic Control Measures	30
3.2.2	County and City Roads	30
3.2.2.1	Link standards	30
3.2.2.2	Junction standards	31
3.2.2.3	Traffic Control Measures	31
3.2.2.4	Frontage Land use, Property Access and On Street Parking	31
3.3	Network Management Measures	32
3.3.1	Intelligent Transport Systems (ITS)	32
3.3.2	Traffic Signals, UTC and SCOOT	32
3.4	Network Operation	39
3.4.1	Transient Conditions	39
3.4.2	Vehicle Journey Time Information	40
3.5	Principal and Main Distributor Roads	40
3.5.1	Current Picture	40
3.6	Future Situation	51
3.7	Benchmarking	69
3.8	Other Roads	70
3.8.1	Current Picture	70

3.8.2	Future Situation _____	72
3.8.3	Benchmarking _____	73
3.9	Policy _____	73
3.10	Conclusions _____	74
<b>4.</b>	<b>Private Car</b>	<b>76</b>
4.1	Current Situation _____	76
4.1.1	Car Club _____	76
4.1.2	Public Car parking _____	76
4.1.3	Motorcycle Parking _____	79
4.1.4	Car Park Occupancy _____	80
4.1.5	Transport Innovation Fund _____	86
4.2	Future Situation _____	86
4.3	Policy _____	86
4.4	Conclusions _____	87
<b>5.</b>	<b>Public Transport</b>	<b>88</b>
5.1	Local Bus _____	88
5.1.1	Current Picture _____	88
5.1.1.1	Joint Investment Plan _____	91
5.1.1.2	Punctuality Improvement Partnerships _____	91
5.1.1.3	Bus Priority Measures _____	92
5.1.1.4	Bus Journey Time Data _____	92
5.1.1.5	Plumstead Road (Witard Road to ORR) _____	93
5.1.1.6	Wroxham Road (Bus Lane to Outer Ring Road) _____	95
5.1.1.7	Constitution Hill (George Hill to Outer Ring Road) _____	96
5.1.1.8	Cromer Road (Fifers Lane to Outer Ring Road) _____	97
5.1.1.9	Drayton High Road (Middletons Lane to Outer Ring Road) _____	98
5.1.1.10	Drayton High Road (Drayton to Middletons Lane) _____	100
5.1.1.11	Aylsham Road (Woodcock Road to Drayton Road) _____	102
5.1.1.12	Catton Grove Road (Catton Grove Road to Edward Street) _____	103
5.1.1.13	TZT Data Summary _____	104
5.1.1.14	Average Bus Speeds _____	106
5.1.1.15	Journey Time Variability _____	107
5.1.1.16	Bus Journey Times _____	108
5.1.1.17	Bus Service Reliability _____	110
5.1.2	Level of Service in the NPA _____	112
5.1.3	Future Situation _____	112
5.1.4	Benchmarking _____	113
5.1.5	Relevant Policy Requirements _____	113
5.2	Park & Ride _____	114
5.2.1	Current Picture _____	114
5.2.2	Future Situation _____	118
5.2.3	Benchmarking _____	118
5.2.4	Policy _____	120
5.3	Community Transport _____	120
5.4	Coach Services _____	121
5.5	Rail Services _____	122
5.5.1	Current Picture _____	122

5.5.2	Future Situation _____	124
5.6	Norwich Airport _____	124
5.6.1	Current Picture _____	124
5.6.2	Future Situation _____	126
5.6.3	Benchmarking _____	126
5.6.4	Policy _____	127
5.7	Taxis _____	128
5.8	Water Transport _____	128
5.9	Conclusions _____	128
<b>6.</b>	<b>Walking and Cycling</b>	<b>130</b>
6.1	Cycling _____	130
6.2	Walking _____	134
6.3	Benchmarking for Walking and Cycling _____	137
6.4	Policy _____	137
6.5	Conclusions _____	138
<b>7.</b>	<b>Freight</b>	<b>140</b>
7.1	Current Picture _____	140
7.2	Relevant Policy Requirements _____	142
7.3	Conclusions _____	143
<b>8.</b>	<b>School Travel Plans</b>	<b>144</b>
8.1	Current Picture _____	144
8.2	Future Situation _____	146
8.3	Benchmarking _____	146
8.4	Policy _____	147
8.5	Conclusions _____	147
<b>9.</b>	<b>Safety</b>	<b>148</b>
9.1	Current Picture _____	148
9.1.1	Accident Cluster Sites _____	149
9.1.2	Accidents on Minor Roads _____	150
9.2	Future Situation _____	152
9.3	Benchmarking Criteria _____	152
9.4	Policy _____	153
9.5	Conclusions _____	154
<b>10.</b>	<b>Environment</b>	<b>155</b>
10.1	Environment _____	155
10.1.1	Current Situation _____	155
10.1.1.1	Noise _____	155
10.1.1.2	Air Quality _____	155
10.1.1.3	Benzene _____	155
10.1.1.4	1, 3-Butadiene _____	156
10.1.1.5	Carbon Monoxide _____	156
10.1.1.6	Lead _____	157
10.1.1.7	Fine Particles _____	157

10.1.1.8	Sulphur Dioxide _____	157
10.1.1.9	Nitrogen Dioxide _____	159
10.1.1.10	Air Quality in South Norfolk and Broadland _____	159
10.2	Benchmarking _____	160
10.3	Natural and Built Environment _____	162
10.3.1	Townscape _____	162
10.3.2	Land Use _____	163
10.3.3	Landscape _____	163
10.3.4	Habitats _____	164
10.4	Policy _____	164
10.5	Conclusions _____	164
<b>11.</b>	<b>Consultation and Engagement</b>	<b>165</b>
11.1	Existing Situation for Consultation and Engagement _____	165
11.1.1	Norfolk County Council Consultation and Engagement _____	165
11.1.1.1	Norfolk County Council – Annual Customer Satisfaction Survey 2008 _____	165
11.1.1.2	Citizens Panel Autumn 2009 _____	166
11.1.1.3	Norfolk County Council Tracker Data 2009 _____	167
11.1.2	Existing Situation for Enquires and Complaints to Norfolk County Council _____	169
11.1.2.1	Speed Complaints _____	170
11.1.2.2	Safety Complaints _____	171
11.1.2.3	HGV Complaints _____	171
11.1.2.4	Parking Complaints _____	171
11.1.2.5	Congestion Complaints _____	171
11.1.3	Norwich Area Transportation Strategy Consultations _____	171
11.1.3.1	Public Consultation on Norwich Area Transportation Strategy Sept 2003 _____	172
11.1.4	Public Consultation on Norwich Area Transportation Strategy Oct/Nov 2009 _____	172
11.2	Future Situation _____	173
11.3	Benchmarking _____	174
11.4	Policy _____	175
11.5	Conclusions _____	175
<b>12.</b>	<b>Summary of Baseline Conditions</b>	<b>177</b>
12.1	Problems Identified _____	177
12.1.1	Conclusions from Section 2: Overview and Context _____	177
12.1.2	Conclusions from Section 3: Highway Network _____	177
12.1.3	Conclusions from Section 4: Private Car _____	178
12.1.4	Conclusions from Section 5: Public Transport _____	178
12.1.5	Conclusions from Section 6: Walking and Cycling _____	180
12.1.6	Conclusions from Section 7: Freight _____	180
12.1.7	Conclusions from Section 8: School Travel Plans _____	180
12.1.8	Conclusions from Section 9: Safety _____	181
12.1.9	Conclusions from Section 10: Environment _____	181
12.1.10	Conclusions from Section 11: Consultation and Engagement _____	181
12.2	Discussion _____	182
12.3	Conclusion _____	185

Appendix A. Accident Data	188
Appendix B. Public Complaint Data	190
Appendix C. Complaint Locations	192

**Tables**

Table 1.1: Local Authority Comparators	5
Table 2.1: Levels of Housing and Employment Growth for Comparable Cities	9
Table 2.2: 2001 Population Proportions based on Age Group	10
Table 2.3: Population of Norwich Compared to Nearest Neighbours (Census 1991 and 2001)	14
Table 2.4: Population of Norfolk Compared to Nearest Neighbours (Census 1991 and 2001)	14
Table 2.5: Bus Passenger Satisfaction by County	15
Table 2.6: Journey by Modes by Residents of Norwich Policy Area in 2000	17
Table 2.7: Distance Travelled to Work by Residents of Norwich	17
Table 2.8: Comparator Distances to Work	17
Table 3.1: Road Length by Norfolk Route Hierarchy Road Class	28
Table 3.2: Dual Carriageway Lengths in the NPA by National Road Class	30
Table 3.3: Calculation of Average AM Peak Journey Time for Norwich	40
Table 3.4: Year on Year Traffic Flows Outside Norwich	48
Table 3.5: Traffic Survey Data Results – 2002 & 2006	49
Table 3.6: Network Average Speeds – Do Minimum	51
Table 3.7: Network PCU Kilometres – Do Minimum	52
Table 3.8: PCU Factors by Vehicle Type	52
Table 3.9: Network Trip Lengths – Do Minimum	52
Table 3.10: Summary of Trip Totals (PCUs) – Do Minimum	53
Table 3.11: Changes in Junctions with V/C over 90%	53
Table 3.12: Junction Delay within the Outer Ring Road	64
Table 3.13: Peak Journey Time Information: Southbound Radial Routes	68
Table 3.14: Changes in Traffic Flows at Points on Cross City Routes (PCUs)	68
Table 3.15: Changes in Average Speed (kph) on Cross City Routes	69
Table 3.16: Existing Traffic Flows on the Identified Minor Roads	70
Table 3.17: Small Schemes Delivered in the NPA 2004 - 2009	71
Table 3.18: All Road (Minus Trunk Roads) Traffic Flows from 2002 to 2008 (million vehicle kilometres)	73
Table 3.19: Traffic Flow Ratios	73
Table 4.1: Car Ownership Levels	76
Table 4.2: Norwich Car Parking Charges	79
Table 5.1: Summary of TZT Findings	105
Table 5.2: Change to Bus Journey Times on First service 19/20	109
Table 5.3: Key Changes to Bus Services Since 1999	112
Table 5.4: Bus Punctuality by County	113
Table 5.5: Park and Ride Sites and Spaces	114
Table 5.6: The Impact of Traffic Growth on Park & Ride Routes: 2031	118
Table 5.7: Comparison of Park and Ride Service of Norwich with York, Cambridge and Bristol	119
Table 5.8: Park & Ride Fares – Ipswich	119
Table 5.9: Park & Ride Fares – York	119
Table 5.10: Park & Ride Fares – Norwich	120

Table 5.11: Community Transport Provision (by District)	121
Table 5.12: Destinations Offered by Norwich International Airport	125
Table 5.13: Comparison of Norwich International Airport with Other City Airports	127
Table 5.14: Mode Share at Regional Airports	127
Table 5.15: Number of Licensed Taxis by District (August 2009)	128
Table 8.1: Mode used to Travel to School (NPA)	144
Table 8.2: School Travel Plans – Summary of Issues	144
Table 8.3: Summary of Key Issues	145
Table 8.4: Comparison of Mode Share for Travel to School in Norfolk with other Counties	146
Table 9.1: Personal Injury Accidents within the NPA	148
Table 9.2: Accident Cluster Data in NPA	149
Table 9.3: Summary of Accident Cluster Data	150
Table 9.4: Number and Severity of Accidents on Identified Rat Runs	151
Table 9.5: Casualty Rates in Norfolk, Cumbria, Lincolnshire, Derbyshire and England (per 100 million vehicles kilometres)	152
Table 9.6: Norwich Policy Area Accidents per 100m vehicle km	153
Table 10.1: Annual Recorded Carbon Monoxide Levels	156
Table 10.2: Maximum Recorded Carbon Monoxide Levels 8 Hour Mean	157
Table 11.1: Response rates to the question, “Overall satisfaction with the local bus service?”	166
Table 11.2: Top five aspects which have got worse for each group	166
Table 11.3: Norfolk and Norwich Residents Perception of Public Transport	168
Table 11.4: Norfolk and Norwich Residents Satisfaction with Bus Punctuality	169
Table 11.5: Summary of Complaints in the Norwich Policy Area by Issue	170
Table 11.6: Key Benchmark Indicator 06 and 08	174
Table 11.7: KBI 23 – Overall satisfaction with the Condition of Highways	175

## Figures

Figure 1.1: Norwich and its Environs	4
Figure 2.1: City of Norwich Plan	7
Figure 2.2: Growth Locations	8
Figure 2.3: Population Forecasts for Norwich Policy Area to 2031	11
Figure 2.4: Household Forecasts for Norwich Policy Area to 2031	12
Figure 2.5: Employment Forecasts for Greater Norwich Area to 2031	13
Figure 2.6: Transport Links	16
Figure 2.7: Norwich 2km, 4km & 9km Commuting Distances	19
Figure 2.8: Work Place Travel	20
Figure 3.1: Norfolk Route Hierarchy	27
Figure 3.2: Short Term Route Hierarchy	29
Figure 3.3: Norwich UTC Area Traffic Flow Profiles	34
Figure 3.4: Norwich UTC Area Delay Profiles	35
Figure 3.5: SCOOT Vehicle Flow Data – Mondays School Term Time	36
Figure 3.6: SCOOT Vehicle Delay Data – Mondays School Term Time	37
Figure 3.7: SCOOT Vehicle Flow Data – Mondays School Summer Holiday Period	38
Figure 3.8: SCOOT Vehicle Delay Data – Mondays School Summer Holiday Period	39
Figure 3.9: Outer Ring Road Circulatory Traffic Flows	41
Figure 3.10: Inner Ring Road Circulatory Traffic Flows	42
Figure 3.11: Norwich Inner Ring Road Cordon	43
Figure 3.12: Norwich Outer Ring Road Cordon	44
Figure 3.13: Outer Ring Road Cordon Traffic Count Data	45



Figure 3.14: Inner Ring Road Cordon Traffic Count Data	45
Figure 3.15: Traffic Crossing Inner Ring Road Cordon / Norwich Population	47
Figure 3.16: Traffic Crossing the Inner Ring Road Cordon / Economically Active People in Norwich	47
Figure 3.17: Average AM Peak Delay	50
Figure 3.18: 2006 Base Year AM Peak Junction Volume / Capacity	54
Figure 3.19: 2016 Do Minimum AM Peak Junction Volume / Capacity	55
Figure 3.20: 2031 Do Minimum AM Peak Junction Volume / Capacity	56
Figure 3.21: 2006 AM Peak Junction Delays	59
Figure 3.22: 2006 AM Peak Junction Delays – Inside Outer Ring Road	60
Figure 3.23: 2016 AM Peak Junction Delays	61
Figure 3.24: 2016 AM Peak Junction Delays – Inside Outer Ring Road	62
Figure 3.25: 2031 AM Peak Junction Delays	63
Figure 3.26: 2031 AM Peak Junction Delays – Inside Outer Ring Road	64
Figure 3.27: Cross City Route 1: Plumstead Road – Newmarket Road	65
Figure 3.28: Cross City Route 2: North Walsham Road – Ipswich Road	66
Figure 3.29: Cross City Route 3: Drayton Road – Loddon Road	67
Figure 3.30: Minor Roads with High Peak Hour Traffic Proportions	71
Figure 4.1: Location of Controlled Parking Zones in Norwich	77
Figure 4.2: Car Park Locations	78
Figure 4.3: Aggregated Car Parking Data – Weekday Occupancy	80
Figure 4.4: Aggregated Car Parking Data – Saturday Occupancy	81
Figure 4.5: Chapelfield Car Parking 2006-2009 Wednesday in June	82
Figure 4.6: Chapelfield Car Parking 2006-2009 Saturday in June	82
Figure 4.7: Forum Car Parking 2004-2009 Wednesday in June	83
Figure 4.8: Forum Car Parking 2004-2009 Saturday in June	84
Figure 4.9: Riverside Car Parking 2004-2009 Wednesday in June	85
Figure 4.10: Riverside Car Parking 2004-2009 Saturday in June	85
Figure 5.1: Total Bus Passengers in Norfolk from 2003 to 2009	89
Figure 5.2: Park & Ride Locations and Routes into Norwich	114
Figure 5.3: Aggregated Park & Ride Occupancy Levels - Weekday	115
Figure 5.4: Airport Park & Ride Occupancy Levels – Weekday	116
Figure 5.5: Postwick Park & Ride Occupancy Levels – Weekday	116
Figure 5.6: Sprowston Park & Ride Occupancy Levels – Weekday	117
Figure 5.7: Aggregated Park & Ride Occupancy Levels – Saturday	117
Figure 6.1: Public Rights of Way in the NPA	131
Figure 6.2: Number of Cycles Crossing the Inner Ring Road Cordon	132
Figure 9.1: Three Year Rolling Average Accident Graph	148
Figure 10.1: Mean Benzene Levels 2003 – 2006	156
Figure 10.2: Daily Sulphur Dioxide Levels Recorded in the City Centre	158
Figure 10.3: 24 Hour Sulphur Dioxide Levels Recorded in the City Centre	158
Figure 10.4: Maximum Hourly Mean of Nitrogen Dioxide Levels	159
Figure 10.5: PM10 Comparison With Neighbouring Cities	160
Figure 10.6: NO2 Comparison With Neighbouring Cities	161
Figure 10.7: Annual Maximum, Mode, Mean and Minimum concentration of NO2 for Norfolk Districts in Comparison to England as a Whole for 2008	161
Figure 11.1: Do you think pollution has got better or worse over the last 3 years (Norwich residents)	168

# 1. Introduction

Norwich is growing and this is set to continue with projections that the growth will be at a significantly increasing rate. The current economic downturn is likely to be relatively short term and it is important for Norwich to have the necessary transport infrastructure to accommodate the growth in the long term. This report highlights the baseline conditions that exist that will potentially limit the City's ability to accept increased levels of growth and travel demand.

The Norwich Area Transportation Strategy (NATS) has been successful to date in controlling the way the City has developed its transport infrastructure and this has included provision of the nationally recognised Park and Ride facilities and the award winning bus station. However the success of NATS is likely to be compromised in the future if significant efforts are not made to continue to deliver its objectives.

It is clear from the information in this report that traffic levels have continued to increase elsewhere in Norfolk and nationally. This is putting increasing pressure on outlying areas of the Norwich Policy Area as traffic is utilising the network of smaller country lanes and through village routes to access the major road network. The congestion already in the city means that drivers are increasingly using these less appropriate roads to reach their destinations.

Most of proposed housing and much of new employment locations are planned in areas outside the Outer Ring Road and this will therefore continue to add pressure to the villages and country lanes in these locations. The situation will get worse with this predicted growth, and the associated traffic growth. It is therefore vital to understand the problems that this creates in order to define the necessary solutions.

The purpose of this report is therefore to identify baseline traffic conditions within the Norwich Policy Area, looking at past years, the current situation and then future years of 2016 and 2031.

NATS was developed in the 1980s by Norfolk County Council (NCC), working with Norwich City, Broadland and South Norfolk District Councils and has developed since then with the current version (NATS4) adopted in October 2004. It sets out how the transport system should be developed to overcome current problems and meet the needs of the area. The main aims of the strategy are to:

- Promote a vibrant city centre, and other commercial centres, by improving accessibility for people and goods;
- Cater for the travel consequences arising from growth aspirations. In particular, accommodate transport needs arising from future growth of the airport and the cluster of the Norwich Research Park, University and hospitals at Colney;
- Maximise transport choice for all travellers;
- Reduce social exclusion through transport solutions and promote equal access to jobs, goods and services;
- Enhance access for non-car modes, promote sustainable means of travel, minimise the length of trips and encourage reduced car-use through land use policies, layout of development and promotion of travel plans;
- Improve integration and interchange;
- Reduce the need to travel;
- Minimise congestion and delays for all modes of transport by improving the efficiency of the transport network;
- Reduce CO2 emissions from transport by encouraging sustainable modes of travel and vehicles using fuels derived from renewable sources or waste;

- Promote the use of alternative modes of transport and less polluting fuels, particularly within Air Quality Management Areas;
- Minimise noise, vibration and visual intrusion from transport, particularly in the public, urban open spaces in the historic city centre;
- Implement transport solutions that protect open space, wildlife habitats and water resources;
- Maximise safety and security for everyone;
- Minimise the number and severity of road traffic accidents;
- Improve the competitiveness of the Norwich Area as a retail, tourist and business centre, whilst enhancing its image and maintaining a high quality environment;
- Lower the incidence of crime experienced on the transport system and remove the perception of fear of crime for vulnerable people; and
- Minimise fear and intimidation from traffic.<sup>1</sup>

This report draws together information contained in existing reports, collates a range of information including data from the 2001 census, personal injury accident data and information obtained from site visits and discussions held with NCC, Broadland District Council, South Norfolk District Council, Norwich City Council and Parish Council Officers. The report considers historical, existing and forecast data and information to build this picture.

The report is structured as follows:

- Section 2: Norwich and its context
- Section 3: Highway Network
- Section 4: Private Car
- Section 5: Public Transport
- Section 6: Walking and Cycling
- Section 7: Freight
- Section 8: Travel Plans
- Section 9: Safety
- Section 10: Environment
- Section 11: Consultation and Engagement
- Section 12: Summary

Each Section is broadly structured as follows:

- A review of the current situation
- A review of the future situation
- The setting of benchmarks to allow comparison with other areas of the country
- A review of relevant local, regional and national policies
- A summary of findings and identification of key issues.

## 1.1 Geographical Extents

The NATS area covers the Norwich Policy Area (NPA), which includes the Norwich urban area along with the first ring of villages, Long Stratton and Wymondham, as well as the area around Salhouse, which will incorporate the proposed Ecotown development at Rackheath. As such throughout this report the geographic area is identified as the NPA. The location of Norwich and its environs is shown in Figure 1.1.

---

1

This figure also indicates the boundary of the NPA which is pertinent to this report as this is the same area as covered by NATS.

## 1.2 Benchmarking

To provide an indication of how the NPA is performing, wherever possible data collected is benchmarked against comparable data for the UK as a whole, England, or for the East of England. In addition, the NPA is indirectly compared to Norwich and Norfolk's comparable towns and counties as identified through the Chartered Institute of Public Finance and Accounting's Nearest Neighbours Model which provides a system of comparing different Local Authorities.

Measuring similarity is a subjective process, and this model was produced to provide a statistically balanced representation of Local Authorities' traits. The variables used are descriptive of the area administered by each authority, and do not relate to the resource or services available to them. The variables used in the model to create comparator groups of authorities are as follows:

- Population;
- Population aged 0 to 17 (%);
- Population aged 75 to 84 (%);
- Population aged 85 plus (%);
- Output area based population density;
- Output area based sparsity;
- Taxbase per head of population;
- % unemployment;
- % daytime net inflow;
- Retail premises per 1,000 populations;
- Housing Benefit caseload (weighted);
- % of people born outside of UK and Ireland;
- % of households with less than 4 rooms;
- % of households in social rented accommodation;
- % of persons in lower NS-SEC (social groups);
- Standardised mortality ratio for all persons;
- Authorities with coast protection expenditure / income;
- Non-domestic rateable value per head of population;
- % of properties in bands A to D;
- % of properties in bands E to H; and
- Area cost adjustment (other services).

Comparative analyses between subject authorities are drawn by the Nearest Neighbours technique which follows the traditional 'distance' approach. These calculations, based on the above variables, result in the production of the closest 15 comparators for each authority. These 15 comparators are used widely by bodies such as the Audit Commission to compare authorities across a range of issues and are detailed in Table 1.1<sup>2</sup>.

---

<sup>2</sup> <http://www.cipfastats.net/download.asp?filename=http://www.cipfastats.net/uploads/NNM%2020092742009231713.xls> (accessed 11 January 2010)







Table 1.1: Local Authority Comparators

Norfolk Comparators		Norwich Comparators	
Closest Comparator	Cumbria	Closest Comparator	Lincoln
2	Lincolnshire	2	Exeter
3	Derbyshire	3	Ipswich
4	Somerset	4	Preston
5	Worcestershire	5	Crawley
6	Nottinghamshire	6	Chesterfield
7	Staffordshire	7	Cambridge
8	North Yorkshire	8	Oxford
9	Warwickshire	9	Harlow
10	Gloucestershire	10	Northampton
11	Devon	11	Cheltenham
12	Suffolk	12	Stevenage
13	Leicestershire	13	Gloucester
14	Cambridgeshire	14	Welwyn Hatfield
15	Northamptonshire	15	Carlisle

Source: [www.CIPFAstats.net](http://www.CIPFAstats.net)

For the purposes of this report, the three closest comparators for each of the two authorities (NCC and Norwich City Council) have been used in the benchmarking carried out. Cumbria, Lincolnshire and Derbyshire are the comparators used for Norfolk, whilst Lincoln, Exeter and Ipswich are used for Norwich.

In benchmarking, it has not always been possible to obtain data specifically relating to the Norwich Policy Area (NPA), due for example to it not aligning with data collected in the national censuses. Therefore there are occasions when alternative data has had to be used. These have alternative geographical extents as follows:

- Norwich Policy Area: The area defined in Figure 1.1 which includes the district of Norwich, the first ring of villages beyond the city as well as Wymondham and Long Stratton.
- Greater Norwich: The three combined districts of Norwich, Broadland and South Norfolk
- Norfolk: The area within the County boundary
- Norwich Urban Area: The main built up area of Norwich comprising the city centre and the adjacent suburban areas including, but not limited to, Costessey, Hellesdon and Thorpe St Andrew.