



Air Quality Review and Assessment: Progress Report 2007

Report to Waveney District Council

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Executive Summary

Under the Environment Act 1995, Local Authorities are required to undertake regular review and assessments of air quality. Local Authorities have recently begun the third round of the review and assessment process. Each round is comprised of two steps. The first step is an Updating and Screening Assessment. Where a significant risk of exceedence of one or more of the UK objectives was identified it was necessary for the Local Authority to proceed to a Detailed Assessment. Where a Local Authority did not need to undertake a Detailed Assessment, a shorter Progress Report is required instead.

Waveney District Council completed an Updating and Screening Assessment (USA) in May 2006. The results of that report showed that no pollutants were expected to exceed the air quality objectives and therefore there was no need to proceed to a detailed assessment. This Progress Report follows the guidance provided in LAQM.PRG(03) and provides the latest nitrogen oxides monitoring results for Waveney District Council and information on new local developments that might affect local air quality.

The latest results show that NO₂ concentrations are predicted to be below the relevant objectives of 2005, at all locations where monitoring took place during 2006.

There is one new Part B process in the District. However, the emissions are not significant and therefore no further assessment is needed.

There is a small reduction on road traffic on the A12 caused by the construction of the new South Lowestoft Relief Road. Further traffic survey on individual vehicle counts should be prepared to more accurately assess the potential impact on the crossroads among the South Lowestoft Relief Road and the A12. These crossroads are Bloodmoor Road and Belvedere Road. No further action is required on the area. Finally, there are no changes to other transport sources.

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1 Introduction

The Environment Act 1995 introduced the Local Air Quality Management (LAQM) system, which requires Local Authorities to undertake regular review and assessment of air quality, with respect to the standards and objectives set in the Air Quality Strategy, and enacted through the Air Quality Regulations in 1997, 2000 and 2002. In areas where an air quality objective is predicted not to be met by the required date, Local Authorities are required to establish Air Quality Management Areas and implement action plans to improve air quality.

Following the second round of air quality review and assessments, now completed in England, Wales and Scotland, each local authority must produce a Progress Report. Progress Reports are prepared between subsequent rounds of review and assessments. The aim is to ensure continuity in the LAQM process.

The third round of air quality review and assessments comprises two steps and is similar to the second round. The first step is an Updating and Screening Assessment, which updates the Stage 1 and 2 review and assessment previously undertaken for all pollutants identified in the Air Quality Regulations. Where a significant risk of exceedence is identified for a pollutant it will be necessary for the Local Authority to proceed to a Detailed Assessment, equivalent to the previous Stage 3 assessments. Where a Local Authority does not need to undertake a Detailed Assessment, a shorter Progress Report is required instead.

A timetable for future rounds of review and assessment has been set, whereby Updating and Screening Assessments are required every three years, in 2003, 2006 and 2009. In the intervening years such as 2007, Local Authorities are required to produce a Progress Report.

1.1 Purpose and Role of Progress Reports

The Progress Report is intended to ensure continuity in the LAQM process. Its objective is to provide an annual review and update on air quality issues, including developments that might be significant to air quality. Any significant developments can then be acted upon immediately, rather than waiting for the next full round of review and assessment. The benefits to Local Authorities are set out in Box 1.1 of the Progress Report Guidance LAQM.PRG(03), but these include the following.

- To provide a readily accessible source of up to date information on air quality, which may be useful to Local Authority staff for dealing with enquiries from members of the public, developers carrying out environmental assessments, and to assist in other areas such as transport and land use planning.
- To ensure continuity in maintaining resourcing, capability and staff skills for LAQM within the Local Authority.
- Helping to get maximum value from the monitoring carried out by the Local Authority.

This report is equivalent to a Progress Report for Waveney District Council as outlined in the Government's published guidance, Part IV of the Environment Act 1995 Local Air Quality Management – Progress Report Guidance LAQM.PRG(03), referred to in this report as the Progress Report Guidance.

1.2 Air Quality Strategy and Objectives

The Air Quality Strategy's standards and objectives are shown in Table 1.2. The table shows the standards in $\mu\text{g}/\text{m}^3$ (mg/m^3 for CO) with the number of exceedences that are permitted (where applicable).

Table 1.2 Objectives included in the Air Quality Regulations 2000 and (Amendment) Regulations 2002 for the purpose of Local Air Quality Management

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene			
All authorities	$16.25 \mu\text{g m}^{-3}$	running annual mean	31.12.2003
Authorities in England and Wales only	$5.00 \mu\text{g m}^{-3}$	annual mean	31.12.2010
Authorities in Scotland and Northern Ireland only	$3.25 \mu\text{g m}^{-3}$	running annual mean	31.12.2010
1,3-Butadiene	$2.25 \mu\text{g m}^{-3}$	running annual mean	31.12.2003
Carbon monoxide			
Authorities in England, Wales and Northern Ireland only	10.0mg m^{-3}	maximum daily running 8-hour mean	31.12.2003
Authorities in Scotland only	10.0mg m^{-3}	running 8-hour mean	31.12.2003
Lead	$0.5 \mu\text{g m}^{-3}$ $0.25 \mu\text{g m}^{-3}$	annual mean annual mean	31.12.2004 31.12.2008
Nitrogen dioxide^a	$200 \mu\text{g m}^{-3}$ not to be exceeded more than 18 times a year $40 \mu\text{g m}^{-3}$	1 hour mean annual mean	31.12.2005 31.12.2005
Particles (PM₁₀) (gravimetric)^b	$50 \mu\text{g m}^{-3}$ not to be exceeded more than 35 times a year $40 \mu\text{g m}^{-3}$	24 hour mean annual mean	31.12.2004 31.12.2004
Authorities in Scotland only ^c	$50 \mu\text{g m}^{-3}$ not to be exceeded more than 7 times a year $18 \mu\text{g m}^{-3}$	24 hour mean annual mean	31.12.2010 31.12.2010
Sulphur dioxide	$350 \mu\text{g m}^{-3}$ not to be exceeded more than 24 times a year $125 \mu\text{g m}^{-3}$ not to be exceeded more than 3 times a year $266 \mu\text{g m}^{-3}$ not to be exceeded more than 35 times a year	1 hour mean 24 hour mean 15 minute mean	31.12.2004 31.12.2004 31.12.2005

a. These objectives are provisional.

b. Measured using the European gravimetric transfer sampler or equivalent.

c. These 2010 Air Quality Objectives for PM₁₀ apply in Scotland only, as set out in the Air Quality (Scotland) Amendment Regulations 2002.

1.3 Conclusions of Previous Review and Assessment

Waveney District Council has completed the following review and assessments of air quality to date:

- Detailed Assessment (December 2004)
- Progress Report (April 2005)
- Updating and Screening Assessment (May 2006)

Waveney District Council has not currently declared any air quality management areas.

The 2004 Detailed Assessment predicted that annual average concentrations of PM₁₀ would be below the annual objective for 2004 at all locations.

The 2006 USA report predicted that none of the objectives listed for pollutants in the UK Air Quality Strategy would be exceeded in Waveney District Council. However, it suggested further work in the form of modelling based on reassessment of traffic flows, post-completion of the current major road building scheme in Lowestoft.

2 Monitoring Data

2.1 Summary of Monitoring Undertaken

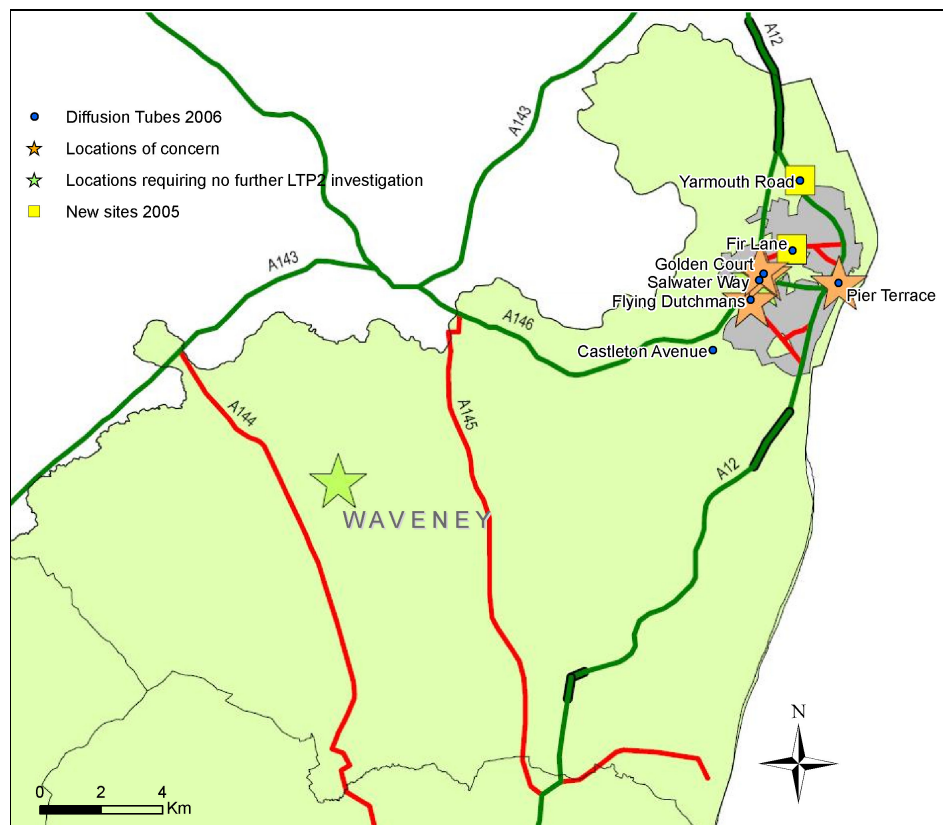
Waveney District Council conducts monitoring of Nitrogen Dioxide (NO₂) by diffusion tubes at 7 roadside sites within the District. None of the sites were co-located with an automatic NO₂ analyser. Details are given in Table 2.1 and Figure 2.1.

Table 2.1 Location and OS grid reference of NO₂ diffusion tube monitoring sites in Waveney District Council.

Site	Location	X Grid Reference	Y Grid Reference
1	Castleton Avenue	650617	290470
2	Fir Lane	653223	293721
3	Flying Dutchmans	651853	292106
4	Golden Court	652272	292960
5	Pier Terrace	654724	292658
6	Saltwater Way	652137	292751
7	Yarmouth Road	653465	295997

The NO₂ diffusion tubes are operated by Waveney District Council and analysed by Harwell Scientifics, a UKAS accredited laboratory. According to Harwell Scientifics' Analysis Reports, the tubes were prepared by spiking acetone: triethanolamine (50:50) onto the grids prior to the tubes being assembled. The tubes were desorbed with distilled water and the extract analysed using a segmented flow autoanalyser with ultraviolet detection.

Figure 2.1 Diffusion Tube monitoring sites in Waveney



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2.2 New Monitoring

2.2.1 New Monitoring

There has been one new NO₂ diffusion tube set up in Waveney District Council since the 2006 Updating and Screening Assessment report. This roadside diffusion tube has been set up in Castleton Avenue and commenced on the 3rd of February 2006.

2.2.2 Discontinued Monitoring Sites

There has been one NO₂ diffusion tube station that has been subsequently discontinued. This was the background site in "St Andrew Ilketshall" and has been removed on the 3rd of February 2006. Figure 2.1 illustrates that area as a location that requires no further Local Transport Plan (LTP2) investigation, as it is an area not subject to traffic management.

2.3 Monitoring Results

2.3.1 NO₂ Diffusion Tube Results

The diffusion tubes were exposed for one-month periods, and the average monthly NO₂ level, from the 4th of January 2006 until the 12th of December 2006, is determined.

The laboratory bias correction factor was calculated using the "diffusion tube" spreadsheet tool and used 12 studies of the Harwell Scientific Services. This spreadsheet tool is published by Air Quality Consultants Ltd on behalf of Defra, the Welsh Assembly Government, the Scottish Executive and the Department of the Environment Northern Ireland and it is available in the UWE web site (2007). From this information the bias factor obtained from the tables was 0.78 for 2006 and was subsequently applied to the raw diffusion tube data provided by the Waveney District Council. Table 2.3.1 shows bias adjusted annual mean nitrogen dioxide concentrations at sites in Waveney District Council. In order to estimate the prediction for 2010, "Year Adjustment Calculator (v2.2a)" was used from the UK National Air Quality Information Archive website (2007). The adjustment factor to estimate annual average concentrations in 2010 from 2006 data was 0.87.

Table 2.3.1 Annual average NO₂ concentrations at sites in Waveney District Council (µg/m³)

No.	Site	Annual Mean Raw Data 2006	Annual Mean Adjusted 2006	Prediction for 2010
1	Castleton Avenue	24.9	19.4	16.9
2	Fir Lane	39.6	30.9	26.9
3	Flying Dutchmans	38.4	30.0	26.1
4	Golden Court	46.5	36.2	31.5
5	Pier Terrace	41.4	32.3	28.1
6	Saltwater Way	35.0	27.3	23.7
7	Yarmouth Road	29.0	22.6	19.7

It can be seen from Table 2.3.1 that all current annual mean NO₂ levels are well below the objective limit set for 2005 (40 µg/m³). The site with the highest measurement is the Golden Court, with concentration of 36.2 µg/m³.

Monthly breakdowns of concentrations recorded from January 2006 to December 2006 are provided in Appendix 1.

2.3.2 Other Pollutants

No monitoring of carbon monoxide, benzene, 1,3-butadiene, PM₁₀, lead or sulphur dioxide is currently undertaken in Waveney District Council.

2.4 Comparison with AQS Objectives

2.4.1 Nitrogen Dioxide

The monitoring data from 2006 do not indicate any exceedances of the annual mean 2005 NO₂ objectives. Nitrogen dioxide levels predicted for 2010 were similarly not anticipated to exceed the 2005 objectives. Based on this a Detailed Assessment is not required.

3 New Developments - Industrial Processes

A Progress Report should address any local developments that might affect air quality. This includes new Part A/A1, A2 or B industrial processes, of types specified in Appendix 2 (E) of LAQM.TG(03). It is also relevant to include any processes with substantially changed emissions. New landfill sites or quarries with relevant public exposure should also be included. It is only necessary to consider developments that have actually been granted planning permission. Likely impacts on air quality from potential new developments should be considered as part of the planning process.

3.1 Part A/A1 Industrial Processes

No new Part A industrial processes have been authorised in Waveney District Council since the last Updating and Screening Report in May 2006.

3.2 Part A2 Industrial Processes

No new Part A2 industrial processes have been authorised in Waveney District Council since the last Updating and Screening Report in May 2006.

3.3 Part B Industrial Processes

There has been one Part B permit issued in Waveney District Council since the last Updating and Screening Report in May 2006. This application for Road Coating process was submitted on the 17th of July 2006:

- Waveney Asphalt Co – Ellough, Beccles, Suffolk, NR34 7TH.
Last review on the process was made on the 31st of January 2007 and according to that Permit issued was incorrect as permission is given for burning recovered oil. This is covered by the Waste Incineration Directive. The emission limit set in the Permit is incorrect at 100mg/m³. It should be 50mg/m³ for all new plants. A review of Permit is highly recommended.

Three Part B applications are pending for Woodworking and Wood Coating process, Print Works and GRP process in Waveney District Council.

There are no new petrol stations with annual throughput of over 2000m³ of petrol with busy roads nearby (>30,000 veh/day). However, there are 17 stations in total which are still operating to their original authorisation. According to Waveney District Council, permits, inspections, and updates to Stage II Vapour are required.

In addition, 6 Permits are required for dry cleaning processes.

3.4 Other Industrial Sources

3.4.1 New Landfill, Quarrying, and Mineral Processes

No new landfill, quarrying or mineral processes in Waveney District Council have commenced operation or significantly changed since the last Updating and Screening Report in May 2006.

3.4.2 New Fuel Storage Depots

No new major fuel storage depots, either in or close to Waveney District Council, have been identified since the last Updating and Screening Report in May 2006.

3.4.3 Small Boilers

Waveney District Council is not aware of any significant changes to $>5\text{MW}_{(\text{thermal})}$ boiler plants and processes since the last Updating and Screening Report in May 2006.

3.4.4 Fugitive Dust Sources

There is an Ash process on the port of Lowestoft. However, according to Waveney District Council, there is no public exposure within 1000m of source.

3.5 Industrial Process Closures

There have been no other plant closures in Waveney District Council since the last Updating and Screening Report in May 2006.

4 New Developments – Transport

4.1 New Road Developments

According to the last Updating and Screening Assessment, there is a new road located in South Lowestoft that was completed in November 2006. This road commences at the Elm Tree Road / Bloodmoor Road roundabout and broadly follows the line of the Kirkley Stream, running in a northeasterly direction towards the harbour bascule bridge. The purpose for the construction of the South Lowestoft Relief Road is to decrease traffic from the A12.

According to the traffic data, there is 13% decrease of traffic on A12 and more specifically on the Pakefield survey site, North of A1117. Depending upon which vehicle categories comprise this reduction, an overall emission reduction can be expected. Currently, the data shows that the reduction in traffic will be mainly of passenger cars. Although this will result in a reduction in traffic emissions, this reduction is not expected to be significant.

4.2 Significant Changes to Existing Roads

There is a scheme, 'Waveney Sunrise Scheme', for pedestrianisation of streets in Lowestoft town centre. This is expected to reduce traffic volume since more people may walk to the town centre rather than using public or private transport.

There are no significant changes to road traffic on the existing roads since the Updating and Screening Assessment in May 2006.

4.3 Other Transport Sources

4.3.1 Trains

There have been no significant changes to the activity of trains in Waveney District Council since the Updating and Screening Assessment was completed. There are no areas where railway engines are run for more than 15 minutes continuously and where members of the public might be exposed. There is a concern about the amount of time for the trains' lay over, since Lowestoft is a terminal station. According to the 2006 Updating and Screening Assessment, the lay over times vary between five and forty minutes. Although, the trains' engines are designed to switch off after 15 minutes, there will be periods that the engines are actually on for more than 15 minutes.

4.3.2 Airports

There are no airports in Waveney District Council that have a throughput of 5 million passengers per year and / or 500,000 tonnes of freight.

4.3.3 Bus Stations

The largest bus station within Waveney District Council has less than 1,000 movements per day which is the threshold level requiring further investigation.

4.3.4 Shipping

The port of Lowestoft is located in the Waveney District Council. However, there are not more than 5,000 shipping movements per year. According to the last Updating and Screening Assessment, 90 movements on cargo vessel and 1300 movements on inshore fishing vessel have been reported in 2005. Based on this, no further action is needed.

5 New Developments – Residential, Commercial and Public

5.1 New Housing / Commercial / Public Developments

There are no new housing developments in Waveney District Council since the Updating and Screening Assessment in May 2006.

There are no new industrial or commercial developments (e.g. retail parks, office blocks, leisure centres) in Waveney District Council since the 2006 Updating and Screening Assessment.

New public developments such as schools, hospitals, stations, major car parks require consideration as they may impact on local traffic flow. No new public developments have been given approval in Waveney District Council since the 2006 Updating and Screening Assessment.

5.2 New Areas of Domestic Solid Fuel

There are no new significant areas of domestic solid fuel use (e.g. coal, anthracite, wood or smokeless fuel). In other words, there is not an area of 500m by 500m with at least 50 houses using these fuels as a primary source of heating in Waveney District Council.

6 Conclusions and Recommendations

The latest results show that NO₂ concentrations are predicted to be below the relevant objectives of 2005, at all locations where monitoring took place on 2006.

There are no processes with substantially changed emissions since the last review and assessment report. However, there is now a new Part B process in the Waveney District Council. This does not have significant emissions and therefore does not need to be assessed further. There have been no significant changes to quarries, mining and landfills in Waveney District Council since the 2006 Updating and Screening Assessment report.

There have been no significant developments in the sectors of industrial, residential, commercial, or public development in the Waveney District Council since the Updating and Screening Assessment report in May 2006.

There is a small reduction on road traffic on the A12 caused by the construction of the new South Lowestoft Relief Road. Further traffic survey on individual vehicle counts should be prepared to more accurately assess the potential impact on the crossroads among the South Lowestoft Relief Road and the A12. These crossroads are Bloodmoor Road and Belvedere Road. No further action is required on the area. Finally, there are no changes to other transport sources.

It is therefore concluded that there is no necessity for Waveney District Council to proceed to a detailed assessment.

7 References

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8 Acknowledgements

We are grateful for the help of Harvey Aitchison and Andrew Reynolds from the Environmental Services of Waveney District Council.

Appendix 1

Details of Monitoring Sites

Raw monthly NO₂ diffusion tube concentrations (January 2006 – December 2006) in µg/m³.

Traffic Data

Raw monthly NO₂ diffusion tube concentrations (January 2006 - December 2006) in µg/m³.

No	Site	04/01 - 03/02	03/02 - 03/03	03/03 - 05/04	05/04 - 05/05	05/05 - 12/06	12/06 - 10/07	10/07 - 07/08	07/08 - 13/09	13/09 - 17/10	17/10 - 14/11	14/11 - 12/12
1	Castleton Avenue	N/A	29	23.5	25.3	16.9	25	26.3	21.7	26.4	32	23
2	Fir Lane	47	37.7	27.2	32.2	32.3	36	31.7	33.5	49.2	45.7	63.3
3	Flying Dutchmans	42.1	39.9	33.9	40.7	34	40.8	33.4	32.5	34	42.9	48.3
4	Golden Court	52.2	44.6	44.3	44.4	32.6	44.1	47.3	NR	44.9	55.1	55
5	Pier Terrace	47.9	51.6	33.8	41.4	36.3	38.1	41.3	38.3	35.4	49.8	NR
6	Saltwater Way	39.7	35	32.6	35.4	31.2	36.7	33.9	23.8	NR	34.8	46.8
7	Yarmouth Road	34.3	31.2	26.1	27.1	20.3	26.3	23.8	23.4	33	37.3	35.9

NR = No Result

Traffic Data

Road	Site Title	Site Ref.	Eastings	Northings	5 Day AADT's - All motorised vehicles (blanks considered)		7 Day AADT's - All motorised vehicles (blanks considered)		Goods Vehicle AADT's - > 6m in length (5 day)		Larger 'Panel' Van AADT's - 5.2m - 6m (5 day)		% HDV	
					2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
A0012	WANGFORD BYPASS	M005	647770	280210	9775	9707	9330	9297	728	686	737	736	7.4%	7.1%
A0144	ILKETSHALL	M017	637614	284199	5103	4977	4634	4533	858	839	187	261	16.8%	16.9%
A0145	SOTHERTON NORTH OF U1519	M018	644439	279104	0	0	0	0	0	0	0		N/A	N/A
A0146	CARLTON COLVILLE	M019	649482	290593	18068	17956	17072	16979	2231	1712	528	562	12.3%	9.5%
A1095	WEST OF SOUTHWOLD	M028	646186	276566	4599	4822	4730	4992	362	403	137	446	7.9%	8.4%
B1062	SHIPMEADOW	M031	637694	289978	5078	5431	4615	4965	347	351	117	174	6.8%	6.5%
A0012	KESSINGLAND BYPASS	M043	652170	287000	13594	13086	13510	12968	1220	1069	436	443	9.0%	8.2%
A0012	LOWESTOFT BASCULE BRIDGE	M044	654770	292750	0	0	0	0	0	0	0	0	N/A	N/A
A0012	SOUTH OF HOPTON BYPASS	M045	652860	298340	0	0	0	0	0	0	0	0	N/A	N/A
A0144	HALESWORTH RELIEF ROAD	M047	638747	277551	12164	12463	11238	11507	920	926	536	551	7.6%	7.4%
A0145	BECCLES	M048	642504	290014	9652	9883	9231	9435	0	0	0	0	N/A	N/A
A1117	SALTWATER WAY - LOWESTOFT	M051	652030	292550	27791	28630	26547	27358	1563	1621	823	885	5.6%	5.7%
A0012	ARTILLERY WAY - LOWESTOFT	M097	655070	293590	14330	13481	13500	12836	978	975	619	630	6.8%	7.2%
B1375	GORLESTON ROAD - LOWESTOFT	C101	652516	294400	13448	14310	12626	13414	811	668	904	709	6.0%	4.7%
B1375	OULTON STREET - LOWESTOFT	C102	652600	294950	9730	0	9007	0	496	491	0	0	5.1%	N/A
B1074	OULTON ROAD - LOWESTOFT	C103	653340	294260	7285	7464	6756	6887	345	337	236	236	4.7%	4.5%
A1117	NORMANSTON DRIVE - LOWESTOFT	C104	653000	293620	19272	18894	18372	18145	915	915	482	513	4.7%	4.8%
C0913	LONG ROAD - LOWESTOFT	C105	652720	291000	8486	8358	7565	7453	516	250	272	169	5.2%	3.6%
A0146	VICTORIA ROAD - LOWESTOFT	C106	652920	292350	13075	12546	12146	11740	804	633	342	310	6.1%	5.0%
C0970	PETO WAY - LOWESTOFT	C107	653690	293040	1981	2011	1800	1824	479	435	453	375	4.8%	4.5%
U0495	CRESTVIEW DRIVE - LOWESTOFT	C108	653340	294620	3628	3529	3335	3258	128	140	68	74	3.5%	4.0%
A1117	NORTHERN SPINE ROAD - LOWESTOFT	C109	653039	295208	9656	9385	9277	9048	489	472	242	240	5.1%	5.0%
A1144	ST PETERS STREET - LOWESTOFT	C110	654303	293681	7685	8007	6923	7210	365	369	167	175	4.7%	4.6%
A1145	COTMER ROAD - OULTON BROAD	C111	652017	291810	13784	13982	13242	13400	684	676	401	403	5.0%	4.8%
U0000	ASHBURNHAM WAY - CARLTON COLVILLE	C112	651940	290793	6939	6864	6650	6524	0	0	0	0	N/A	N/A

Road	Site Title	Site Ref.	Eastings	Northings	5 Day AADT's - All motorised vehicles (blanks considered)		7 Day AADT's - All motorised vehicles (blanks considered)		Goods Vehicle AADT's - > 6m in length (5 day)		Larger 'Panel' Van AADT's - 5.2m - 6m (5 day)		% HDV	
					2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
B1384	LOWESTOFT RD - CARLTON COLVILLE	C113	651538	290176	5791	5585	5423	5233	279	271	149	138	4.8%	4.9%
B1384	CASTLETON ROAD - CARLTON COLVILLE	C114	615700	290500	0	8128	0	7613	0	727	0	252	N/A	8.9%
A0012	SOUTH LOWESTOFT RELIEF ROAD - SOUTH	C115	653125	291210	0	10714	0	10180	0	617	0	268	N/A	5.8%
A0012	SOUTH LOWESTOFT RELIEF ROAD - NORTH	C116	653710	292120	0	10988	0	10386	0	614	0	260	N/A	5.6%
B1062	BUNGAY - FLIXTON ROAD - WEST OF C947	Y039	633674	288704	4091	3419	3754	2999	0	624	0	108	N/A	18.3%
B1126	REYDON SOUTH OF U1620	Y046	649507	278079	1374	1330	1293	1356	0	0	0	0	N/A	N/A
B1127	NORTH OF SOUTHWOLD	Y047	650868	279098	5423	5930	5475	6023	0	0	0	0	N/A	N/A
B1127	SOUTH EAST OF BECCLES	Y048	645983	287687	5636	6079	5417	6102	0	0	0	0	N/A	N/A
A0145	SOUTH OF SHADINGFIELD	Y113	643452	283249	4446	4803	4184	4546	171	183	100	100	3.8%	3.8%
B1074	BLUNDESTON WEST OF C904	Y123	650903	296931	3142	3375	3006	3144	0	278	0	357	N/A	8.2%
B1123	BLYFORD EAST OF U1326	Y134	642800	276763	4379	4179	4479	4141	0	334	0	357	N/A	8.0%
B1124	NORTH EAST OF HOLTEN	Y135	642044	279449	1849	1483	1636	1299	41	88	52	52	2.2%	5.9%
A0145	BECCLES SOUTH OF BYPASS	Y147	642562	290965	0	0	0	0	0	0	0	0	N/A	N/A
A0146	BECCLES BYPASS EAST OF RIVER	Y148	642146	291380	15560	19944	17074	18833	1566	2040	676	679	10.1%	10.2%
A0146	BECCLES BYPASS EAST OF RAILWAY	Y149	643062	291109	0	0	0	0	0	0	0	0	N/A	N/A
A0143	PAKENHAM, NORTH EAST OF C649	Y157	591180	268210	0	0	0	0	0	0	0	0	N/A	N/A
B1074	LOWESTOFT EAST OF A1117	Y158	653250	294300	0	0	0	0	0	0	0	0	N/A	N/A
A0012	PAKEFIELD - NORTH OF A1117	Y159	653350	289950	15286	13280	14634	12759	1163	1002	669	616	7.6%	7.5%
B1437	KESSINGLAND (OLD A12)	Y197	652967	287958	6612	5502	6491	5427	0	510	0	697	N/A	9.3%
U1114	THE THOROUGHFARE, HALESWORTH	Y201			0	0	0	0	0	0	0	0	N/A	N/A
B1127	NEW ROAD WORLINGHAM AIRFIELD	Y202	645148	288262	7388	5664	7125	5305	0	821	0	697	N/A	14.5%
C0969	WORLINGHAM ELLOUGH ROAD	Y203	644721	288283	10042	9611	9619	9230	0	1044	0	697	N/A	16.8%



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