



## 2020 Air Quality Annual Status Report (ASR)

In fulfilment of Part IV of the  
Environment Act 1995  
Local Air Quality Management

Date June 2020

**North Norfolk District Council**

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## Executive Summary: Air Quality in Our Area

### Air Quality in North Norfolk

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas<sup>1,2</sup>.

The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion<sup>3</sup>.

Air Quality Data recorded by North Norfolk District Council does not currently indicate any significant air quality impacts within North Norfolk. Previous NO<sub>2</sub> monitoring undertaken between 1997 and 2013 in local urban towns successfully demonstrated that Nitrogen Dioxide levels were well below the national objective. PM<sub>10</sub> was not previously deemed to be a problem due to the absence of locations that meet the emission scenarios publicised in technical guidance.

No monitoring was undertaken between 2011 and 2016, however diffusion tube monitoring was re-established in 2016/17 following a review. The purpose of the current monitoring programme is to detect and determine any changes in Nitrogen Dioxide that have occurred since 2011.

Data collected from the latest period January 2019 until Dec 2019 continues to indicate that levels of Nitrogen Dioxide have been consistent with those areas that were previously monitored before 2011/12. Annual average concentrations of NO<sub>2</sub> in the latest period did not exceed the national objectives and have not shown any significant changes other than a marginal reduction.

To date no AQMAs have been declared in the district, as such, the need for action planning or strategic development has been unwarranted. The Councils proposal to manage local air quality will be to continue monitoring the district for the foreseeable future and raise awareness.

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<sup>1</sup> Environmental equity, air quality, socioeconomic status and respiratory health, 2010

<sup>2</sup> Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

<sup>3</sup> Defra. Abatement cost guidance for valuing changes in air quality, May 2013

North Norfolk District Council currently works closely with its cross partner authorities and meets on a quarterly basis to discuss Air quality issues.

## **Actions to Improve Air Quality**

Although there are no AQMAs situated in North Norfolk, the Council is conscious that it cannot be complacent, and as such, continues to work to minimise and mitigate pressures from developments that erode air quality within the district.

As part of this work the Council has an Air Quality Planning strategy which introduces more robust controls on development of all sizes to minimise the aggregate effects on air quality. Since the introduction of this strategy the planning department has noted a significant increase in applications where air quality reporting has been requested and subsequently submitted.

The Council is also undertaking an indicative continuous monitoring programme using Earth Sense Zephyrs which currently provide the authority the ability to monitor PM<sup>10</sup> and PM<sup>2.5</sup> particulates as well as NO<sub>x</sub>.

North Norfolk District Council has initiated this monitoring program across the district on a 6 month rotational basis (between sites) with the aim of expanding data coverage beyond our passive network and provide a web based platform for public observation.

## **Conclusions and Priorities**

The Conclusions for the 2020 ASR indicates no significant increase or changes in air quality at those areas currently monitored. In view of this there is no justification for further detailed assessment or the designation of any air quality management areas at this time. The priority for the coming year will be to continue hotspot monitoring for Nox exceedances and continue to develop a public facing web based portal to allow public viewing of Air quality data.

## **Local Engagement and How to get Involved**

The Council has begun to participate more in local and national engagement events to raise the profile of air pollution. Examples include Clean Air day and support work at

## **North Norfolk District Council**

the Royal Norfolk Show and other regional events to present topical air quality issues and raise awareness.

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## 1 Local Air Quality Management

This report provides an overview of air quality in North Norfolk during 2019. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995) and the relevant Policy and Technical Guidance documents.

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by North Norfolk to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England can be found in Table E.1 in Appendix E.

## 2 Actions to Improve Air Quality

### 2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority must prepare an Air Quality Action Plan (AQAP) within 12-18 months setting out measures

North Norfolk currently does not have any AQMAs



## 2.2 Progress and Impact of Measures to address Air Quality in North Norfolk

Defra's appraisal of last year's ASR concluded on the basis of the evidence provided by the Local Authority the conclusions reached are acceptable for all sources and pollutants. North Norfolk District Council continues to take forward a number of direct measures initiated during the previous reporting years in pursuit of improving local air quality, this includes:

### Continued Evaluation and Deployment of Zephyr continuous monitors

The performance of the Zephyr units following co-location work in respect to Nitrogen Dioxide has been satisfactory, and nationally the performance of these units in respect to AURN sites has relatively successful. Since the last review, the concerns associated with PM have been addressed with the purchase of upgraded cartridges which provide more accurate and speciated results. The performance of the PM sensor will be assessed over the coming reporting year.

In regards to Nitrogen Dioxide, zephyr unit 168 will remain deployed in Hoveton to obtain 12 months of continuous data. Unit 054, currently at Fakenham, has completed its 6 month deployment and will be removed shortly to undertake a study of particulate emissions at the Poppy Rail line running between Sheringham and Holt.

### Development of Web Base Portal

The Council is still exploring how to present this information in real time using a public facing portal accessible via the Council's web site, however the Covid 19 pandemic resulted in a redirection of resources, which prevented work in this area. The Council still intends to pursue this area of development when resources become available.

### Particulate Monitoring at Hoveton

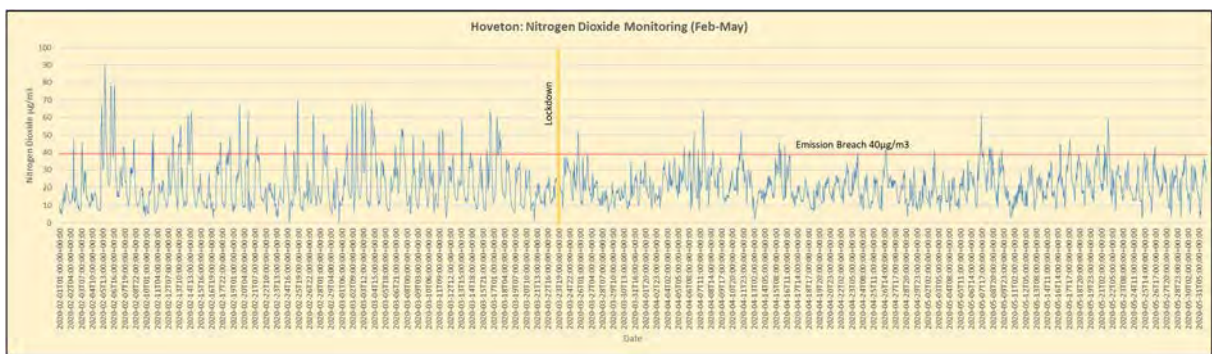
PM concentrations for the Hoveton Hotspot (Site 1) will continue for a further 6 months in an attempt to determine the particulate levels at this location.

### Nox Monitoring at Hoveton (Site 1)

12 months of passive monitoring for Nitrogen dioxide revealed a single exceedance of the national objective during the month of March 2019 ( $42.3\mu\text{g}/\text{m}^3$ ) and an annual average of  $31.3\mu\text{g}/\text{m}^3$ . Previous records suggest that an exceedance in March is

unusual, however this result coincided with Bridge maintenance work at the time which resulted in higher levels of congestion than usual. Although continuous monitoring at this same location did not occur during the same period, 6 months' worth of data from Zephyr 168 has been obtained for the first half of 2020 (see figure 1). Unfortunately this coincided with the Covid 19 lock down, as such, the data cannot be representative of normal conditions. However the results are interesting none the less and show a significant decline in recorded peaks after the lock down period.

Figure 1



## 2.3 PM<sub>2.5</sub> – Local Authority Approach to Reducing Emissions and/or Concentrations

As detailed in Policy Guidance LAQM.PG16 (Chapter 7), local authorities are expected to work towards reducing emissions and/or concentrations of PM<sub>2.5</sub> (particulate matter with an aerodynamic diameter of 2.5µm or less). There is clear evidence that PM<sub>2.5</sub> has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

Modelling data presented in the 2017 ASR (NNDC, 2017) indicated that there are areas in the North Norfolk District that exceed 10µg/m<sup>3</sup>. It was discussed at the time that due to the distribution of exceedances the elevated concentrations were unlikely to be attributed to road traffic. North Norfolk District Council will now be deploying continuous monitors to examine particulate levels in some of these areas. Council plans to develop and undertake an apportionment study (along with monitoring) to understand the composition of particulate matter in hotspot areas. This will help determine the Councils course of action going forward.

## 3 Air Quality Monitoring Data and Comparison with Air Quality Objectives and National Compliance

### 3.1 Summary of Monitoring Undertaken

#### 3.1.1 Automatic Monitoring Sites

North Norfolk District Council does not currently have sufficient automatic monitoring data to provide at this time.

#### 3.1.2 Non-Automatic Monitoring Sites

North Norfolk District Council undertook non- automatic (passive) monitoring of NO<sub>2</sub> at 16 sites during 2019. Table A.1 in Appendix A shows the details of the sites.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance/Quality Control (QA/QC) for the diffusion tubes, including bias adjustments and any other adjustments applied (e.g. “annualisation” and/or distance correction), are included in Appendix C.

### 3.2 Individual Pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for bias<sup>4</sup>, “annualisation” (where the data capture falls below 75%), and distance correction<sup>5</sup>. Further details on adjustments are provided in Appendix C.

#### 3.2.1 Nitrogen Dioxide (NO<sub>2</sub>)

Table A.2 in Appendix A compares the ratified and adjusted monitored NO<sub>2</sub> annual mean concentrations for the past 5 years with the air quality objective of 40µg/m<sup>3</sup>. Note that the concentration data presented in Table A.2 represents the concentration at the location of the monitoring site, following the application of bias adjustment and annualisation, as required (i.e. the values are exclusive of any consideration to fall-off with distance adjustment).

For diffusion tubes, the full 2019 dataset of monthly mean values is provided in Appendix B. Note that the concentration data presented in Table B.1 includes distance corrected values, only where relevant.

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<sup>4</sup> <https://laqm.defra.gov.uk/bias-adjustment-factors/bias-adjustment.html>

<sup>5</sup> Fall-off with distance correction criteria is provided in paragraph 7.77, LAQM.TG(16)

The highest recorded exceedance in North Norfolk continues to be associated with the Hoveton Hotspot (site 1), which exceeded the air quality objective for NO<sup>2</sup> during the month of March 2019, however for this same location the annual average remains below the national objective.

### **3.2.2 Particulate Matter (PM<sub>10</sub>)**

North Norfolk District Council has not previously monitored PM<sub>10</sub>, however the authority will now be in a position to undertake this work with the deployment of indicative continuous monitors.

### **3.2.3 Particulate Matter (PM<sub>2.5</sub>)**

North Norfolk District Council has not previously monitored PM<sub>10</sub>, however the authority will now be in a position to undertake this work with the deployment of indicative continuous monitors.

### **3.2.4 Sulphur Dioxide (SO<sub>2</sub>)**

North Norfolk District Council is not currently monitoring for Sulphur Dioxide

Table A.1 – Details of Non-Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Distance to Relevant Exposure (m) <sup>(1)</sup>	Distance to kerb of nearest road (m) <sup>(2)</sup>	Tube collocated with a Continuous Analyser?	Height (m)
1	Hoveton (Opposite Toy Store)	Roadside	318172	630393	NO2	NO	0	1.5	NO	2.5
2	Waveney Close Hoveton	Roadside	318624	631131	NO2	NO	0	1	NO	2.5
3	Grammar School Rd, North Walsham	Roadside	330190	628400	NO2	NO	0	1	NO	2.5
4	Norwich Road North Walsham	Roadside	329754	628056	NO2	NO	0	1	NO	2.5
5	Cliff Drive, Cromer	Roadside	341984	622477	NO2	NO	0	2	NO	2.5
6	Hamilton Road, Cromer	Roadside	342187	621836	NO2	NO	0	2	NO	2.5
7	Norwich Road Holt	Roadside	338451	607760	NO2	NO	0	2	NO	2.5
8	Woodfield Road, Holt	Roadside	339384	608327	NO2	NO	0	1.5	NO	2.5
9	Queens Rd, Fakenham	Roadside	329690	592131	NO2	NO	0	2	NO	2.5
10	Barons Hall Rd, Fakenham	Roadside	329654	592605	NO2	NO	0	1.5	NO	2.5
11	Corbett Road, North Walsham	Roadside	330906	592605	NO2	NO	0	1	NO	2.5
12	High Street, Holt	Roadside	338736	607795	NO2	NO	0	1.5	NO	2.5
13	Hoveton, Roy's Shop Front	Roadside	318212	630442	NO2	NO	0	1.2	NO	2.5
14	Hoveton, Roy's Car Park	Roadside	318239	630477	NO2	NO	0	2	NO	2.5
15	Trinity Road, Fakenham	Roadside	330780	593277	NO2	NO	0	3	NO	2.5
16	Rudham Stile Lane	Roadside	330698	592394	NO2	NO	0	1	NO	2.5

**Notes:**

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

(2) N/A if not applicable.

Table A.2 – Annual Mean NO<sub>2</sub> Monitoring Results

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2019 (%) <sup>(2)</sup>	NO <sub>2</sub> Annual Mean Concentration (µg/m <sup>3</sup> ) <sup>(3) (4)</sup>				
							2015	2016	2017	2018	2019
1	318172	630393	Roadside	Passive	n/a	83.3		35.3	30.7	32.5	31.3
2	318624	631131	Roadside	Passive	n/a	100		7.8	12	10.2	10.9
3	330190	628400	Roadside	Passive	n/a	100		20.2	24.7	22.3	22.9
4	329754	628056	Roadside	Passive	n/a	91.6			20.7	21.3	19.3
5	341984	622477	Roadside	Passive	n/a	100		8.3	10.8	9.0	8.7
6	342187	621836	Roadside	Passive	n/a	91.6		22.2	26.2	22.9	23.7
7	338451	607760	Roadside	Passive	n/a	100			17.7	19.9	19.2
8	339384	608327	Roadside	Passive	n/a	100		7.7	10	9.5	8.8
9	329690	592131	Roadside	Passive	n/a	100		21.6	21.7	19.9	20.3
10	329654	592605	Roadside	Passive	n/a	100		7.5	10	8.9	8.6
11	330906	592605	Roadside	Passive	n/a	100		9.9	11.5	11.5	13.1
12	338736	607795	Roadside	Passive	n/a	91.6		19.3	21.9	21.2	19.2
13	318212	630442	Roadside	Passive	n/a	100			27.4	26.5	24.9
14	318239	630477	Roadside	Passive	/a	100			24.6	23	22.9



15	330780	593277	Roadside	Passive		100			12.5	14.6	14.6
16	330698	592394	Roadside	Passive		100			10.3	9.3	10.3

- Diffusion tube data has been bias corrected
- Annualisation has been conducted where data capture is <75%
- Reported concentrations are those at the location of the monitoring site (bias adjusted and annualised, as required), i.e. prior to any fall-off with distance adjustment

**Notes:**

Exceedances of the NO<sub>2</sub> annual mean objective of 40µg/m<sup>3</sup> are shown in **bold**.

NO<sub>2</sub> annual means exceeding 60µg/m<sup>3</sup>, indicating a potential exceedance of the NO<sub>2</sub> 1-hour mean objective are shown in **bold and underlined**.

- (1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
- (2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).
- (3) Means for diffusion tubes have been corrected for bias. All means have been “annualised” as per Boxes 7.9 and 7.10 in LAQM.TG16 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.
- (4) Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

## Appendix B: Full Monthly Diffusion Tube Results for 2019

Table B.1 - NO<sub>2</sub> Monthly Diffusion Tube Results - 2019

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	NO <sub>2</sub> Mean Concentrations (µg/m <sup>3</sup> )														
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean		
															Raw Data	Bias Adjusted (0.89) and Annualised <sup>(1)</sup>	Distance Corrected to Nearest Exposure <sup>(2)</sup>
1	318172	630393	34.0	38.9	<b>42.3</b>	34.5	31.0	33.2		32.1	29.3		38.5	38.5	35.2	31.3	31.3
2	318624	631131	14.1	21.1	13.0	9.7	6.9	6.8	8.5	7.4	9.0	12.3	19.3	19.3	12.3	10.9	10.9
3	330190	628400	25.9	36.2	26.8	24.9	17.8	22.1	21.6	25.6	23.4	14.0	35.4	35.4	25.8	22.9	22.9
4	329754	628056	20.3	27.5	21.6		17.3	15.3	17.9	16.7	18.1	21.6	31.1	31.1	21.7	19.3	19.3
5	341984	622477	11.0	18.0	8.5	7.8	6.2	6.6	7.8	9.8	8.3	11.7	7.6	14.5	9.8	8.7	8.7
6	342187	621836	22.5	33.2	24.6	24.2	22.7	23.0	28.9		25.2	28.1	30.2	30.2	26.6	23.7	23.7
7	338451	607760	17.0	27.1	13.8	24.7	20.5	20.9	19.3	19.4		25.9	24.3	24.3	21.6	19.2	19.2
8	339384	608327	12.3	15.0	8.0	8.9	6.2	6.5	6.7	7.5	8.1	10.7	14.3	14.3	9.9	8.8	8.8
9	329690	592131	23.9	30.8	17.9	18.6	20.6	18.3	19.6	19.9	20.6	25.4	29.1	29.1	22.8	20.3	20.3
10	329654	592605	13.6	16.0	7.9	8.2	6.5	6.1	6.1	6.7	6.7	6.9	15.4	15.4	9.6	8.6	8.6
11	330906	592605	16.2	23.1	13.3	11.3	9.3	19.6	9.0	10.7	11.1	13.3	19.9	19.9	14.7	13.1	13.1
12	338736	607795	21.1	29.8	18.0	21.1	20.1	18.6		11.2	16.9	22.8	28.7	28.7	21.5	19.2	19.2
13	318212	630442	30.7	33.4	35.6	30.1	26.5	25.0	25.7	26.1	24.6	14.6	31.9	31.9	28.0	24.9	24.9
14	318239	630477	27.4	35.2	28.9	22.2	15.7	19.3	22.3	29.9	21.5	21.8	32.3	32.3	25.7	22.9	22.9
15	330780	593277	17.8	23.9	11.2	9.6	13.0	13.7	10.7	15.6	13.2	18.6	24.6	24.6	16.4	14.6	14.6
16	330698	592394	14.1	17.0	9.5	10.6	8.7	7.9	7.2	7.3	8.7	12.6	17.7	17.7	11.6	10.3	10.3

- Local bias adjustment factor used
- National bias adjustment factor used
- Annualisation has been conducted where data capture is <75%
- Where applicable, data has been distance corrected for relevant exposure in the final column

**Notes:**

Exceedances of the NO<sub>2</sub> annual mean objective of 40µg/m<sup>3</sup> are shown in **bold**.

NO<sub>2</sub> annual means exceeding 60µg/m<sup>3</sup>, indicating a potential exceedance of the NO<sub>2</sub> 1-hour mean objective are shown in **bold and underlined**.

(1) See Appendix C for details on bias adjustment and annualisation.

(2) Distance corrected to nearest relevant public exposure.

## Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC

### Bias Adjustment

The bias adjustment figure was obtained from the National Diffusion Tube Bias Adjustment Spreadsheet. The selected figure chosen from the spreadsheet was associated with Gradko, which was compiled from 29 studies. Given the number of studies contributing to the final figure, it was considered a good representation of the bias.

Gradko	50% TEA in acetone	2018	Overall Factor3 (29 studies)	<b>0.89</b>
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### Annualisation

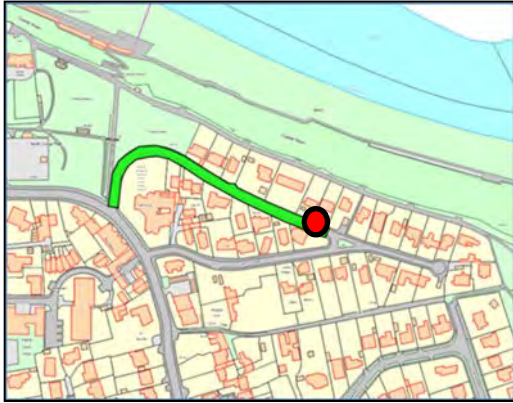
There was good coverage on all sites during the monitoring period with no individual site falling below 83.3%

### QA/QC Analysis

Diffusion tube analysis is currently contracted to Gradko International. According to the latest round of WASP performance, Gradko attained a 100% rating.

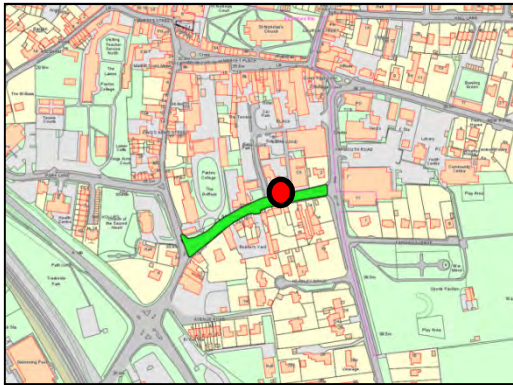
AIR PT Round	AIR PT AR024	AIR PT AR025	AIR PT AR027	AIR PT AR028	AIR PT AR030	AIR PT AR031	AIR PT AR033	AIR PT AR034
Round conducted in the period	January – February 2018	April – May 2018	July – August 2018	September – October 2018	January – February 2019	April – May 2019	July – August 2019	September – November 2019
Aberdeen Scientific Services	100 %	100 %	100 %	100 %	75 %	100 %	100 %	100 %
Cardiff Scientific Services	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]
Edinburgh Scientific Services	100 %	100 %	100 %	100 %	100 %	NR [2]	100 %	25 %
SOCOTEC	100 % [1]	100 % [1]	100 % [1]	100 % [1]	87.5 % [1]	100 % [1]	100 % [1]	100 % [1]
Exova (formerly Clyde Analytical)	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]
Glasgow Scientific Services	100 %	100 %	50 %	100 %	100 %	100 %	100 %	50 %
Gradko International [1]	100 % [1]	100 %	100 %	100 %	75 %	100 %	100 %	100 %
Kent Scientific Services	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]
Kirklees MBC	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]
Lambeth Scientific Services	NR [2]	NR [2]	NR [2]	25 %	50 %	100 %	50 %	100 %
Milton Keynes Council	100 %	75 %	100 %	100 %	100 %	100 %	50 %	100 %
Northampton Borough Council	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]
Somerset Scientific Services	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
South Yorkshire Air Quality Samplers	100 %	100 %	100 %	100 %	100 %	100 %	100 %	75 %
Staffordshire County Council	50 %	100 %	100 %	100 %	100 %	75 %	75 %	75 %
Tayside Scientific Services (formerly Dundee CC)	100 %	NR [2]	100 %	NR [2]	100 %	NR [2]	100 %	NR [2]
West Yorkshire Analytical Services	50 %	75 %	100 %	100 %	100 %	100 %	100 %	50 %

## Appendix D: Map(s) of Monitoring Locations and AQM



Cliff Drive, Cromer

Site 5



Grammar School Road, North Walsham

Site 3



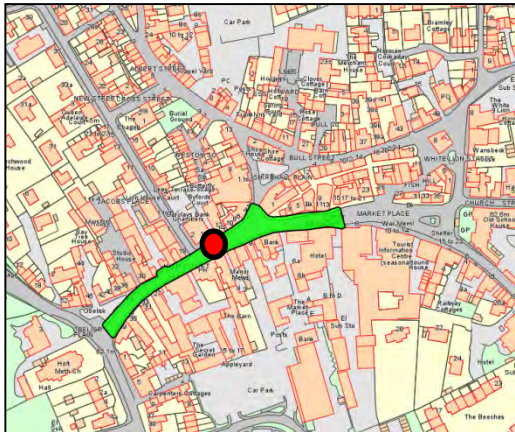
Norwich Road, North Walsham

Site 4



Corbett Road, Cromer

Site 11



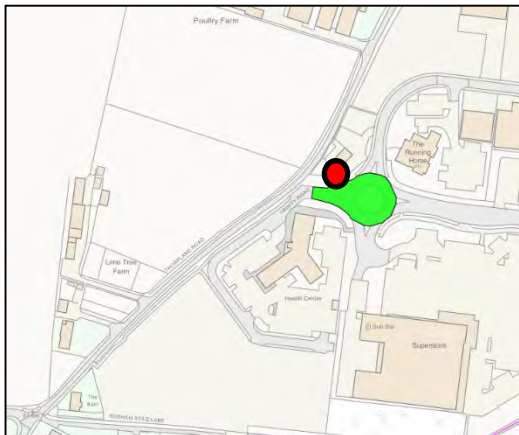
High Street, Holt

Site 12



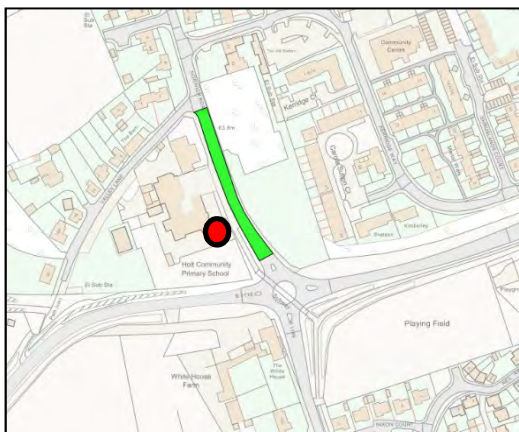
Woodfield Road, Cromer

Site 8



Trinity Road, Fakenham

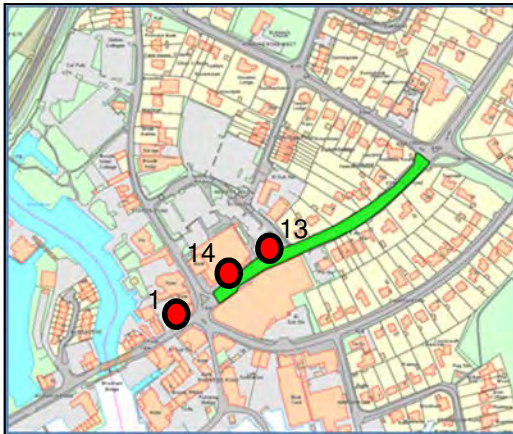
Site 15



Norwich Road, Holt

Site 7

# North Norfolk District Council



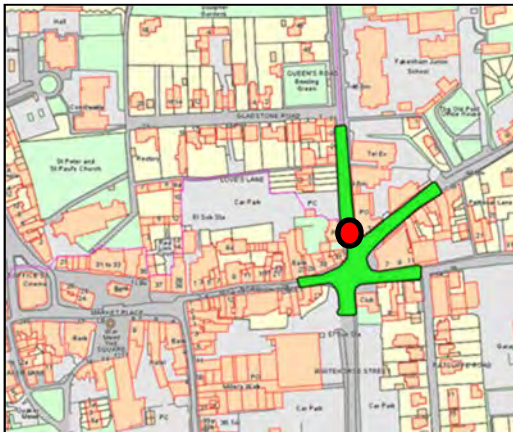
Stalham Road, Hoveton

Site 1, 13, 14



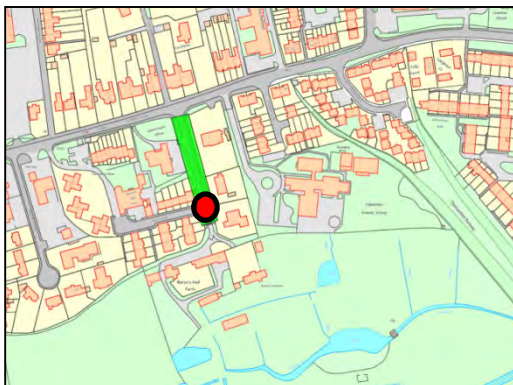
Waveney Close, Hoveton

Site 2



Queens Road, Fakenham

Site 9



Barons Hall Lane, Fakenham

Site 10

Rudham Stile Lane, Fakenham

Site 16





## Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England

Pollutant	Air Quality Objective <sup>6</sup>	
	Concentration	Measured as
Nitrogen Dioxide (NO <sub>2</sub> )	200 µg/m <sup>3</sup> not to be exceeded more than 18 times a year	1-hour mean
	40 µg/m <sup>3</sup>	Annual mean
Particulate Matter (PM <sub>10</sub> )	50 µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	24-hour mean
	40 µg/m <sup>3</sup>	Annual mean
Sulphur Dioxide (SO <sub>2</sub> )	350 µg/m <sup>3</sup> , not to be exceeded more than 24 times a year	1-hour mean
	125 µg/m <sup>3</sup> , not to be exceeded more than 3 times a year	24-hour mean
	266 µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	15-minute mean

<sup>6</sup> The units are in microgrammes of pollutant per cubic metre of air (µg/m<sup>3</sup>).

## Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
ASR	Air quality Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by Highways England
EU	European Union
FDMS	Filter Dynamics Measurement System
LAQM	Local Air Quality Management
NO <sub>2</sub>	Nitrogen Dioxide
NO <sub>x</sub>	Nitrogen Oxides
PM <sub>10</sub>	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
PM <sub>2.5</sub>	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SO <sub>2</sub>	Sulphur Dioxide
...	...

## References

North Norfolk District Council (2017), Air Quality Annual Status Report (ASR)