A47/A11 Thickthorn Junction

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6.3 Environmental Statement Appendix
Appendices 5.1 – 5.3

APFP Regulation 5(2)(a)

Planning Act 2008

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Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

The A47/A11 Thickthorn Junction Development Consent Order 202[x]

ENVIRONMENTAL STATEMENT APPENDIX
Appendices 5.1 – 5.3

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SCHEDULE OF APPENDICES INCLUDED IN THIS APPLICATION DOCUMENT

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Appendix 5.1 – Air quality dispersion modelling process	HE551492-GTY-EAQ-000-RP-LA-00002
Appendix 5.2 – Air quality verification of model adjustment	HE551492-GTY-EAQ-000-RP-LA-00002
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Appendix 5.1 – Air quality dispersion modelling process

1.1. Introduction

1.1.1. The Atmospheric Dispersion Modelling System (ADMS) Roads dispersion modelling software has been developed by Cambridge Environmental Research Consultants Ltd (CERC) and is a software which models air pollution using road traffic as a source of pollutant emissions. ADMS Roads version 5.0.0.1 was used for this study.

1.2. Modelling parameters

1.2.1. The following model input parameters were used for this assessment:

Road parameters

1.2.2. ADMS Roads requires inputs of road widths (and height if canyons have been specified, although this was not required for this project). Road widths were determined using the Ordnance Survey Mastermap data within ArcGIS.

Surface roughness length

1.2.3. The surface roughness length at the meteorological measurement site (at Norwich Airport) was set to 0.3m due to the area being largely agricultural or rural with only a slight urban environment. The remainder of the study area had a surface roughness set to 0.5m which was representative of parkland and open suburbia areas.

Monin-Obukhov length

1.2.4. The Monin-Obukhov length is a parameter used to measure the stability of the atmosphere. It describes the turbulence length which is dependent on the meteorological conditions. For very stable conditions, in rural areas, a typical value can range between 2m to 20m. In large urban areas, an urban heat island effect can occur as result of the buildings and traffic warming the air above the town/city. This can prevent the atmosphere ever becoming stable. A minimum Monin-Obukhov length will vary depending on how large the area is. A minimum Monin-Obukhov length of 10m was set for this study area, which was representative of small towns with a population of less than 50,000.

Terrain

1.2.5. A gradient of greater than 1:10 can impact dispersion. Following a review of the study area, terrain was not required to be considered within the assessment, therefore no terrain file was included in the model.

1.3. Background concentrations

1.3.1. The background concentrations across the study area have been obtained from maps published by Defra. The downloaded data covered all local authorities within the ARN, on a 1km x 1km grid from years 2017 to 2030.

1.3.2. As per consultation with Highways England, it was agreed the most recent 2017 based background maps would be downloaded for the assessment and factored back to the baseline year of 2015. A backcasting factor obtained from Highways England was used to cast the NO_x 2017 background maps to the year 2015. This factor has been derived by calculating the average annual mean NO_x concentration from 55 background AURN monitoring stations for the relevant years and then divided by the average of the data from the same set of background AURN monitoring stations for the year 2017. This produced a factor of 1.004 for the year 2015. This 2017 mapped backgrounds were multiplied by this factor to obtain 2015 NO_x values.

1.3.3. As Defra did not provide a backcasting factor for PM10 concentrations, a similar process was undertaken to cast the 2017 PM10 backgrounds back to 2015. Annual mean PM10 data was downloaded from the two nearest automatic monitoring stations for the years 2014 to 2018. A factor was produced by dividing the 2017 annual mean concentration with the 2015. An average was taken of the two factors produced which was then applied to the downloaded 2017 PM10 background maps. Full details on how the PM10 factor was produced can be found in Table 1.

Table 1: PM_{10} backcasting factor derivation

Site ID	Site Type	PM_{10} Annual Mean ($\mu g/m^3$)					Factor (2015/2017)	Average
		2014	2015	2016	2017	2018		
Castle Meadow	Roadside	21	21	20	23	27	0.9130	0.9253
Lakenfields	Urban Background	16	15	16	16	16	0.9375	

1.3.4. A more detailed breakdown of background concentrations per 1km grid square for the study area can be found in Table 2.

Table 2: Background concentrations per 1km x 1km grid square

Grid Square	2015 (µg/m^3)		2025 (µg/m^3)	
	NO_x	PM_{10}	NO_x	PM_{10}
619_304	18.9	14.1	13.1	14.0
611_301	17.1	13.4	12.9	13.2
612_302	19.0	14.1	13.8	13.9
618_305	23.0	16.0	15.6	15.9
611_300	14.1	13.9	10.2	13.7
611_302	14.5	13.3	10.8	13.1
619_305	17.6	13.7	12.5	13.5
614_304	13.7	14.0	10.1	13.8
610_301	13.5	13.9	10.1	13.8
613_302	18.7	15.2	13.0	15.1
610_302	13.1	13.4	9.7	13.2
613_303	14.5	14.1	10.6	14.0
614_303	15.1	14.4	10.9	14.3
612_301	17.8	14.8	12.6	14.7
613_301	14.3	14.1	10.4	13.9
614_305	12.9	14.4	9.6	14.3
614_307	12.5	14.0	9.2	13.9
615_304	15.0	13.9	10.9	13.7
617_304	18.4	15.2	12.8	15.1
615_303	17.7	14.9	12.3	14.8
618_304	16.0	14.3	11.3	14.1
618_307	17.5	13.7	13.0	13.5

Grid Square	2015 (µg/m³)		2025 (µg/m³)	
	NO_x	PM_{10}	NO_x	PM_{10}
617_306	17.7	15.6	12.4	15.5
616_305	14.5	13.9	10.5	13.8
615_307	13.0	14.4	9.6	14.2
618_308	16.0	13.5	11.6	13.2
617_308	15.6	13.3	11.3	13.1
616_307	16.2	14.2	11.5	14.1
617_305	15.3	13.8	11.0	13.6
618_306	16.6	15.4	11.8	15.3
621_303	18.3	14.8	12.8	14.7
623_304	16.8	15.2	11.9	15.1
625_306	22.7	15.8	15.8	15.7
624_304	14.3	15.1	10.4	15.0
614_302	17.1	14.5	12.0	14.4

1.4. Local authority monitoring

1.4.1. The monitoring results for South Norfolk Council ranging from years 2015 to 2018 are presented in Table 3.

Table 3: South Norfolk Council monitoring results 2015-2018

Site ID	Name	Type	Annual Mean Concentrations (µg/m³)				
			2014	2015	2016	2017	2018
DT1	46A Old Newmarket Rd	Suburban	21.5	17.1	20.2	21.2	19.7
DT2	131 Longwater Lane	Suburban	20.3	18.1	21.2	21.6	20.1

Site ID	Name	Type	Annual Mean Concentrations (µg/m^3)				
			2014	2015	2016	2017	2018
DT3	90 The Street	Suburban	18.0	15.4	19.3	20.0	18.6
DT4	87 Denmark St	Suburban	24.1	21.0	29.2	26.7	24.8
DT5	131 Victoria Road	Suburban	33.0	26.0	30.0	28.2	26.2
DT6	21 Church Plain	Suburban	12.0	10.4	13.5	20.2	18.8
DT7	A140 Long Stratton	Roadside	27.8	32.0	33.5	37.2	34.6
DT8	Fairland Street	Kerbside	23.4	18.4	23.3	22.0	20.5
DT9	Kirby Bedon	Kerbside	26.7	21.4	25.4	24.9	23.2
DT10	209 Norwich Rd	Suburban	16.7	12.0	18.0	16.5	15.3
DT11	2 Thickthorn Cottages	Roadside	15.9	12.8	15.8	14.9	13.9
DT12	Rightup Lane	Suburban	21.4	16.3	21.9	21.2	19.7
DT13	233 Norwich Rd	Suburban	14.2	11.9	15.9	16.1	15.0
DT14	28 Norwich Rd	Suburban	18.1	13.3	17.0	16.2	15.1
DT15	Harleston	Roadside	28.1	25.1	27.6	26.2	24.4
DT16	Diss Road	Roadside	20.5	18.1	21.4	26.2	24.4
DT17	84 West Road	Roadside	13.1	10.8	19.4	20.5	19.1
DT18	Long Stratton Chinese	Roadside	27.4	25.9	29.8	26.6	24.7
DT19	Long Stratton Traffic Light	Roadside	36.3	30.6	36.9	34.3	31.9

Site ID	Name	Type	Annual Mean Concentrations (µg/m^3)				
			2014	2015	2016	2017	2018
DT20	Long Stratton Funeral	Suburban	35.9	33.6	32.9	31.0	28.8
DT21	Long Stratton Southbound	Suburban	35.1	26.9	31.1	28.5	26.5
DT22	Long Stratton Coop	Roadside	26.4	23.2	25.2	20.5	19.1
DT23	3 Norwich Road	Suburban	16.2	13.0	16.7	15.6	14.5
DT24	14 Station Road	Suburban	17.1	13.9	17.4	16.1	15.0
DT25	Long Stratton Bus Stop	Roadside	31.7	29.3	30.1	29.0	27.0
DT26	Newmarket Road	Roadside	24.4	21.4	25.5	24.1	22.4
DT27	Lord Nelson Dr	Roadside	28.3	23.1	28.4	25.4	23.6
DT28	Riverside Court	Suburban	0.0	16.3	14.1	13.9	12.9
DT29	25 Broad St	Suburban	28.2	31.5	27.8	24.2	22.5

Appendix 5.2 – Air quality verification and model adjustment

1.1. Introduction

1.1.1. Model verification is the comparison of modelled concentrations with available local monitoring data. Verification identifies how accurate the modelled results are in comparison to monitored results and provides an indication on how well the model is preforming. Discrepancies in results can arise as a result of the following:

- Uncertainties and limitations with meteorological data
- Inaccuracies in the traffic data
- Estimates of background pollutant concentrations and any backcasting required
- Variables in the model input parameters such as roughness length, minimum Monin-Obukhov
- The overall limitations with the dispersion model
- Inaccuracies associated with monitoring data and monitored locations

1.2. Model performance

1.2.1. The model performance was scrutinised to establish how robust the modelled results were when compared to monitoring data. Guidance outlined in LAQM.TG(16) was used to evaluate the model's performance and identify any uncertainties. The guidance states modelled results must be adjusted to ensure final concentrations are representative of the monitoring information in the study area.

1.2.2. A number of statistical procedures outlined in LAQM.TG(16) were used to evaluate model performance and assess uncertainties. The statistical parameters used to describe the uncertainties within the model are as follows:

- The correlation coefficient
- Fractional bias
- Root Mean Square Error (RMSE)

1.2.3. The statistical parameters estimate whether the modelled results agree or deviate from observations. These parameters provide valuable information on how well the model is preforming. A more detailed description on these statistical parameters can be found in Table 4 below, taken from LAQM.TG(16) Box A7.17.

Table 4: Model performance statistics

Statistical Parameter	Description	Ideal Value
Correlation Coefficient	Measures the linear relationship between the predicted and observed data. A value of zero means there is no relationship and a value of 1 means an absolute relationship exists. This statistic is useful when a large number of model and observed data points are being compared.	1.00
Fractional Bias	Identifies if the model shows a systematic tendency to over or under predict. Fractional bias values vary between +2 and -2, with an ideal value of zero. Negative values suggest the model is over-predicting and positive values suggest the model is under-predicting.	0.0
Root Mean Square Error (RMSE)	Defines the average error or uncertainty of the model. The units of RMSE are the same as the quantities being compared.	0.0

1.2.4. These statistical parameters are used to draw the following comparison:

- To draw a comparison between the observations against the predictions from a given model in order for performance and uncertainty to be evaluated.
- To compare the observations with the predictions from a number of set ups of a given model, called model sensitivity. This identifies which model set up performs better.
- Compare observations with predictions from different models.

1.2.5. These calculations have been carried out prior to and after adjustment and help provide useful information on model improvement as a result of the application of the verification adjustment factors.

1.2.6. If the model does not perform well against the monitoring data, then a review of the input data must be done to ensure it is reasonable and accurately represents the air quality modelling process. If all input data, such as background concentrations and traffic data, has been reviewed and deemed suitable, then the modelled results may need to be adjusted to better align with monitored results.

1.3. Air quality monitoring data

1.3.1. Two sets of air quality monitoring data were available for this air quality assessment:

- Local authority monitoring sites with concentrations ranging from 2015-2018
- Scheme specific Highways England monitoring data producing a 2019 annual mean NO_2

1.3.2. LAQM.TG(16) recommends model verification to be performed on roadside and background sites only. Therefore, in accordance with the guidance, only roadside local authority monitoring locations within the study area were chosen for model verification. This equated to only one local authority monitoring tube in 2015 – DT26.

1.3.3. Due to a baseline traffic dataset for the year 2015 being provided, this had the potential to limit the monitoring data which could be used for verification.

1.3.4. The scheme specific monitoring data once bias adjusted and annualised, was factored back to 2015 to review annual mean concentration around the Proposed Scheme in 2015, and to be used for verification purposes.

1.3.5. The scheme specific monitoring data was factored back from 2019 to 2015 using local measurement data from the Councils monitoring network. The Castle Meadow automatic monitoring site, located within Norwich city centre, was used produce the back-casting factor.

1.3.6. This introduced a level of uncertainty to the monitored results. Full details on the bias adjustment, annualisation and projection of annual mean to 2015 is discussed in the bias adjustment and annualisation section within this Appendix.

1.4. Bias adjustment and annualisation

Scheme specific monitoring

1.4.1. Sweco undertook a six-month monitoring survey around the study area using NO_2 diffusion tubes for the purpose of this assessment. The survey ran from September 2019 to March 2020, with the monitoring being reported at three locations within the study area.

1.4.2. The concentrations measured at these locations required bias adjustment and annualisation to produce annual mean concentrations representative of 2019. Bias adjustment was derived using the national bias adjustment spreadsheet (version 03/20). The national bias adjustment factor for SOCOTEC Didcot, using 20% triethanolamine (TEA) in water was 0.76.

1.4.3. A local bias adjustment factor was calculated using the co-location at Norwich Castle Meadow automatic monitoring site; however, this produced a bias adjustment factor of 0.67. This is significantly lower than the national bias adjustment factor and could result in an underprediction of annual mean concentrations. In line with South Norfolk Council's most recent annual status report (ASR), our study has used the national adjustment factor of 0.76.

1.4.4. The bias adjusted diffusion tube data were then annualised to calculate a 2019 equivalent annual mean. The six months of monitoring data used an

annualisation factor derived from the local automatic monitoring network. The results on how the factor was derived are presented in Table 5.

Table 5: Derivation of the annualisation factor

Site ID	Site type	2019 annual mean (µg/m^3)	2019 period mean (µg/m^3)	2019 ratio (annual mean or period Mean)	Annualisation factor (average ratio across all three sites)
Norwich Lakenfields	Urban Background	12.7	15.9	0.80	0.83
Wicken Fen	Rural Background	8.5	11.0	0.77	
Castle Meadow	Roadside	41.2	44.3	0.93	

1.4.5. The bias adjustment and annualisation factors were then applied to the monitored results to produce a final 2019 annual mean. Full results are presented in Table 6 below.

Table 6: derivation of the 2019 annualised bias adjusted annual mean

Site ID	Raw 6 month period mean	National bias adjustment factor	National bias adjusted 6 month period mean	Annualisation factor	Annualised bias adjusted annual mean
Thickthorn 1	020.2	0.76	15.4	0.83	12.8
Thickthorn 2	30.5		23.2		19.3
Thickthorn 3	37.9		28.8		24.0
Thickthorn 4	24.3		18.5		15.4

Monitoring year adjustment

1.4.6. The baseline year considered within the assessment is 2015, therefore 2019 annual mean data were projected back to produce an indicative 2015 annual mean concentration.

1.4.7. At the time of the assessment 2019 data had not been published by the Local Authorities within the study area. Therefore, 2019 measurement data from the automatic monitoring station at Castle Meadow in Norwich city centre was used to adjust the 2019 data to 2015, to be used for model verification purposes. This was completed by producing a factor by diving the 2019 annual mean by the 2015 annual mean (41/55 = 1.34). The 2019 scheme specific monitoring results

were then factored back to 2015 using this value. The full results of the back projection of monitoring concentrations is presented in Table 7.

Table 7: back projection of 2019 monitored results

Site ID	Annualised bias adjusted annual mean 2019	Factored to 2015 (1.34)
Thickthorn 1	12.8	17.2
Thickthorn 2	19.3	25.9
Thickthorn 3	24.0	32.2
Thickthorn 4	15.4	20.6

Verification methodology

NO_x and NO_2

1.4.8. The verification methodology followed the guidance outlined in LAQM TG.(16). The first step in the verification process was to compare the modelled road NO_x against the monitored road NO_x. Since diffusion tubes measure NO_2, the Defra NO_x to NO_2 calculator was used to calculate the road NO_x from the local authority diffusion tubes. This comparison allowed for the modelled road NO_x to be adjusted.

1.4.9. Linear regression determines the best line of fit for the modelled NO_x against the monitored NO_x. The gradient of the best line of fit is then used as the adjustment factor.

1.4.10. The second step in the verification process was to calculate the road NO_2. Using the adjusted road NO_x from step 1. The NO_x to NO_2 calculator was used to convert the adjusted road NO_x into road NO_2. A comparison was then drawn between the road NO_2 against the monitored NO_2, and the road NO_2 was adjusted accordingly.

1.4.11. The linear regression plots comparing modelled and monitored road NO_x concentrations before and after adjustment for both the local authority monitoring can be found in Figure 1.

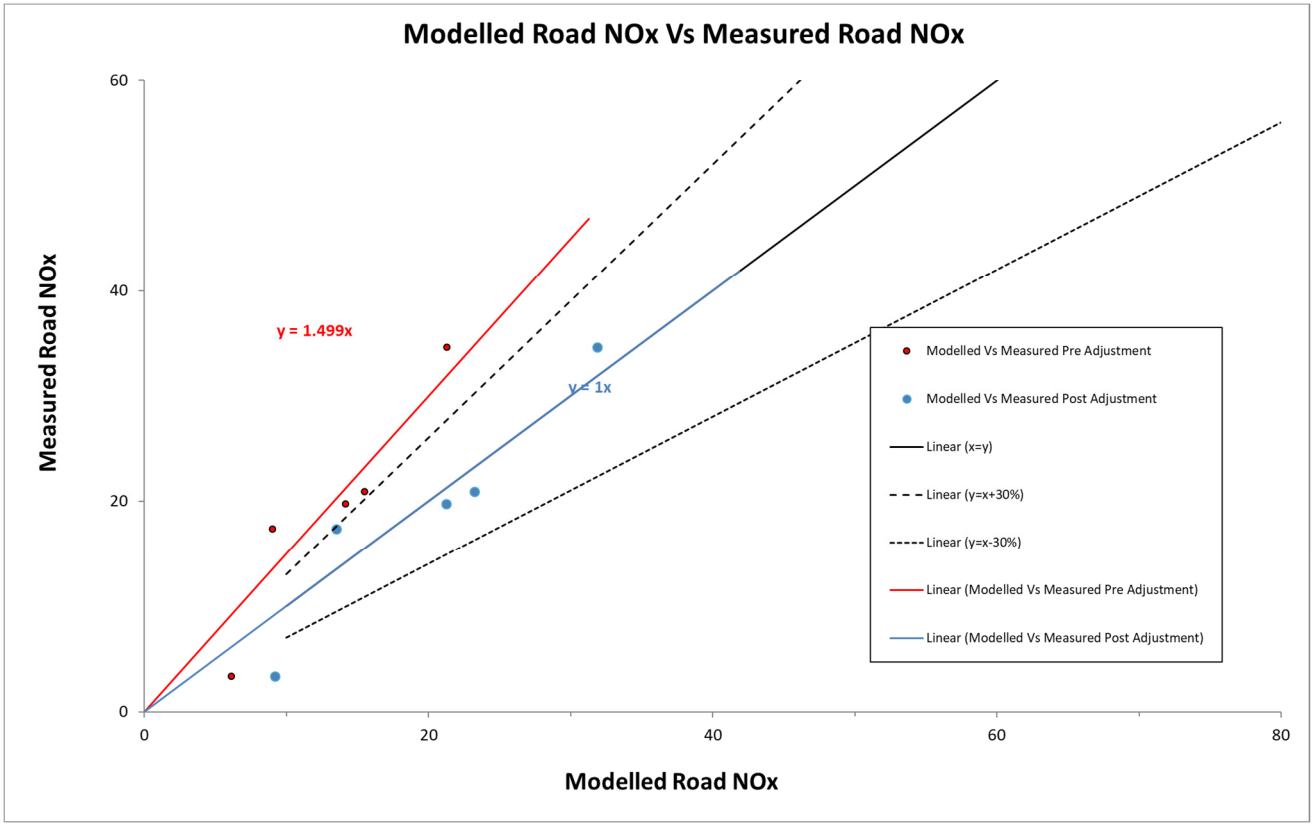

Figure 1: Linear regression plot of modelled vs monitored NO_x 2015 – local authority and scheme specific monitoring

1.4.12. Prior to adjusting the modelling results all input data were reviewed, and no further improvements were identified.

1.4.13. Following modelling adjustment of the road NO_x as described above. The calculated annual mean NO_2 concentrations, modelled vs monitored concentrations before and after adjustment can be found in Table 8.

Table 8: Modelled vs monitored NO_2 concentrations (µg/m^3)

Tube ID	Monitoring	Monitored NO_2 (µg/m^3)	Unadjusted Total NO_2 (µg/m^3)	Percentage difference (%)	Adjusted Total NO_2 (µg/m^3)
DT26	Local authority	21.4	17.2	-20	19.5
Thickthorn 1	Scheme-specific	17.2	18.6	8	20.2
Thickthorn 2	Scheme-specific	25.9	23.3	-10	27.0
Thickthorn 3	Scheme-specific	32.2	26.1	-19	31.0

Tube ID	Monitoring	Monitored NO_2 ($\mu g/m^3$)	Unadjusted Total NO_2 ($\mu g/m^3$)	Percentage difference (%)	Adjusted Total NO_2 ($\mu g/m^3$)
Thickthorn 4	Scheme-specific	20.6	17.8	-14	21.3

1.4.14. A summary of the adjustment factors and model performance statistics can be found in Table 9 below.

Table 9: Summary of adjustment factors and model performance statistics

Monitoring Sites	Number of monitoring sites	Adjustment factor	RMSE
Local authority and scheme specific	4	1.499	1.77

PM_{10}

1.4.15. In accordance with LAQM TG (16), in the absence of any PM_{10} monitoring data for verification, the NO_x adjustment factor may be applied to the modelled PM_{10} results. Due to the absence of monitoring sites measuring PM_{10} around the study area, the NO_x verification factor was used to adjust the PM_{10} baseline modelled results.

Appendix 5.3 – Air quality receptor results

1.4.16. This Appendix contains the results for all of the worst-case modelled human (Table 5.10) and ecological receptors (Table 5.11).

1.5. Human health receptor results

1.5.1. A total of 155 human health receptors were modelled to predict air quality concentrations at a local level. The full modelled results are presented in Table 10.

Table 10: Modelled air quality human health results for NO_2 and PM_{10}.

Receptor	X	Y	Address	Property Type	Annual mean NO_2 (µg/m^3)				Annual mean PM_{10} (µg/m^3)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
R1	610819	301849	30 Town Green, Wymondham, Norfolk, NR18 0PW	Residential	17.18	12.77	12.60	-0.17	14.92
R2	610805	301826	The Feathers, Town Green, Wymondham, Norfolk, NR18 0PN	Residential	17.55	12.89	12.77	-0.11	15.12
R3	612805	302804	2 Wilfred Owen Mews, Wymondham, Norfolk, NR18 0ZB	Residential	17.44	12.80	12.41	-0.39	14.75
R4	614932	304084	16 St Johns Close, Hethersett, Norfolk, NR9 3DQ	Residential	17.31	13.02	13.09	0.08	15.04
R5	614775	304839	40 Mill Road, Hethersett, Norfolk, NR9 3DP	Residential	17.83	13.68	13.73	0.04	15.19
R6	614902	304119	19 St Johns Close, Hethersett, Norfolk, NR9 3DQ	Residential	17.12	12.76	13.06	0.30	14.98
R7	614913	304983	15 Mill Road, Hethersett, Norfolk, NR9 3DR	Residential	15.34	11.96	11.33	-0.63	14.55
R8	613082	302658	2 Mile Bridge Farm Cottage, Milebridge Farm, Spinks Lane, Wymondham,	Residential	17.04	12.37	12.55	0.18	15.60

Receptor	X	Y	Address	Property Type	Annual mean NO_2 ($\mu g/m^3$)				Annual mean PM_{10} ($\mu g/m^3$)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
			Norfolk, NR18 0SR						
R9	610796	301848	15 Town Green, Wymondham, Norfolk, NR18 0PN	Residential	18.04	13.44	13.27	-0.17	15.06
R10	611272	301518	11 The Bridewell, Norwich Road, Wymondham, Norfolk, NR18 0NS	Residential	19.85	14.67	14.85	0.18	14.51
R11	611271	302496	2 Sheffield Road, Wymondham, Norfolk, NR18 0LX	Residential	12.59	9.16	9.09	-0.06	13.54
R12	611766	301557	23 Browick Road, Wymondham, Norfolk, NR18 0QN	Residential	14.30	10.34	10.53	0.19	13.66
R13	610799	301873	3 Pople Street, Wymondham, Norfolk, NR18 0PS	Residential	23.51	18.19	17.73	-0.46	15.86
R14	611141	301476	7A Bridewell Street, Wymondham, Norfolk, NR18 0AR	Residential	21.11	15.69	15.60	-0.09	14.97
R15	611224	301514	Herdius, Browick Road, Wymondham, Norfolk, NR18 0QN	Residential	17.21	12.67	12.67	0.00	14.19
R16	611294	301448	3A Avenue Road, Wymondham, Norfolk, NR18 0QF	Residential	22.09	16.33	16.12	-0.21	14.73
R17	611862	301555	33 Gunton Road, Wymondham, Norfolk, NR18 0QP	Residential	14.21	10.27	10.46	0.19	13.65
R18	610969	302069	41 Pople Street, Wymondham,	Residential	13.41	9.92	9.76	-0.16	13.88

Receptor	X	Y	Address	Property Type	Annual mean NO_2 ($\mu g/m^3$)				Annual mean PM_{10} ($\mu g/m^3$)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
			Norfolk, NR18 0LW						
R19	611374	301503	19 Kimberley Street, Wymondham, Norfolk, NR18 0NU	Residential	17.73	12.85	13.45	0.61	14.18
R20	610826	301882	9 Pople Street, Wymondham, Norfolk, NR18 0PS	Residential	20.46	15.22	14.81	-0.41	15.28
R21	612766	302577	28 Flanders Rise, Wymondham, Norfolk, NR18 0YQ	Residential	17.65	12.78	12.99	0.21	14.62
R22	611320	302746	1 Dussindale, Wymondham, Norfolk, NR18 0TA	Residential	12.91	9.40	9.32	-0.07	13.66
R23	612664	302618	Jutland Rise, Wymondham, Norfolk, NR18 0YR	Residential	19.77	14.09	14.56	0.47	15.00
R24	610957	301512	Whartons Court, Wymondham, Norfolk, NR18 0UQ	Residential	17.03	11.99	11.93	-0.06	15.09
R25	610952	302048	2 Elkins Road, Wymondham, Norfolk, NR18 0LF	Residential	14.79	10.88	10.71	-0.16	14.05
R26	612736	302805	239 Norwich Road, Wymondham, Norfolk, NR18 0SI	Residential	16.74	12.26	11.98	-0.28	14.64
R27	610984	302590	10 Carleton Close, Wymondham, Norfolk, NR18 0EE	Residential	18.65	13.79	13.54	-0.24	14.76
R28	610903	302438	63 Melton Road, Wymondham, Norfolk, NR18 0DE	Residential	14.51	10.58	10.53	-0.04	14.07

Receptor	X	Y	Address	Property Type	Annual mean NO_2 ($\mu g/m^3$)				Annual mean PM_{10} ($\mu g/m^3$)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
R29	611281	301435	4 Avenue Road, Wymondham, Norfolk, NR18 0QF	Residential	26.88	18.92	18.52	-0.40	15.42
R30	611286	302542	20 Hewitts Lane, Wymondham, Norfolk, NR18 0JA	Residential	12.27	8.91	8.86	-0.05	13.52
R31	613181	303055	12 Norwich Common, Wymondham, Norfolk, NR18 0SP	Residential	15.57	11.48	10.94	-0.54	14.88
R32	611778	301524	28 Larkhill, Browick Road, Wymondham, Norfolk, NR18 0QN	Residential	14.65	10.52	10.76	0.24	13.72
R33	610929	302016	1 Elkins Road, Wymondham, Norfolk, NR18 0LF	Residential	16.05	11.76	11.54	-0.22	14.20
R34	611372	302114	Wymondham High Academy, Folly Road, Wymondham, Norfolk, NR18 0QT	School	12.05	8.75	8.74	-0.01	13.51
R35	614622	304643	70 Mill Road, Hethersett, Norfolk, NR9 3DS	Residential	14.85	10.86	11.10	0.24	14.61
R36	610989	302732	107 Melton Road, Wymondham, Norfolk, NR18 0DE	Residential	15.10	11.02	10.93	-0.10	14.20
R37	614579	303906	44 Ketts Oak, Hethersett, Norfolk, NR9 3DJ	Hospital	14.32	10.54	10.20	-0.33	14.93
R38	612516	302658	209 Norwich Road, Wymondham, Norfolk, NR18 0SJ	Residential	19.48	14.16	14.10	-0.07	15.10

Receptor	X	Y	Address	Property Type	Annual mean NO_2 ($\mu g/m^3$)				Annual mean PM_{10} ($\mu g/m^3$)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
R39	611370	301484	Browick Road Primary And Nursery School, Browick Road, Wymondham, Norfolk, NR18 0QW	School	15.55	11.22	11.44	0.22	13.84
R40	612739	302580	23 Jutland Rise, Wymondham, Norfolk, NR18 0YR	Residential	17.99	12.97	13.24	0.27	14.69
R41	611579	301543	Wild Rose, Browick Road, Wymondham, Norfolk, NR18 0QN	Residential	15.44	11.15	11.41	0.26	13.85
R42	613136	303024	Mulberry Bush Day Nursery, St Edmunds, Norwich Common, Wymondham, Norfolk, NR18 0SP	School	15.28	11.30	10.80	-0.49	14.83
R43	611002	302759	Round House, Tuttles Lane West, Wymondham, Norfolk, NR18 0JJ	Residential	16.69	12.19	12.10	-0.10	14.27
R44	611455	301503	16 Browick Road, Wymondham, Norfolk, NR18 0QW	Residential	15.89	11.41	11.75	0.34	13.91
R45	612855	302599	13 Flanders Rise, Wymondham, Norfolk, NR18 0YQ	Residential	17.14	12.45	12.60	0.15	14.53
R46	611469	301504	16A Kings Mill, Browick Road, Wymondham, Norfolk, NR18 0QW	Residential	15.62	11.23	11.53	0.30	13.87
R47	614833	303972	Wishing Well Cottage, Ketts Oak, Hethersett, Norfolk, NR9 3DJ	Residential	13.97	10.25	10.04	-0.21	14.86

Receptor	X	Y	Address	Property Type	Annual mean NO_2 ($\mu g/m^3$)				Annual mean PM_{10} ($\mu g/m^3$)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
R48	611300	302785	15 Hewitts Lane, Wymondham, Norfolk, NR18 0JA	Residential	14.89	10.83	10.84	0.01	14.05
R49	614784	304808	35 Mill Road, Hethersett, Norfolk, NR9 3DR	Residential	18.73	14.04	14.31	0.27	15.25
R50	611209	302450	Norfolk County Council, Robert Kett Primary School, Hewitts Lane, Wymondham, Norfolk, NR18 0LS	School	12.30	8.94	8.91	-0.02	13.53
R51	611883	301562	9 Mallow Way, Wymondham, Norfolk, NR18 0XF	Residential	13.95	10.08	10.24	0.16	13.61
R52	611154	301471	6 Bridewell Street, Wymondham, Norfolk, NR18 0AR	Residential	19.18	14.19	14.12	-0.07	14.60
R53	612146	301439	Browick Cottage, Browick Road, Wymondham, Norfolk, NR18 9RA	Residential	15.30	11.05	11.40	0.35	15.21
R54	614764	304818	42 Mill Road, Hethersett, Norfolk, NR9 3DP	Residential	19.70	14.82	15.06	0.24	15.51
R55	610834	301875	Pople Street, Wymondham, Norfolk, NR18 0PS	Residential	22.95	17.31	16.73	-0.58	15.61
R56	610878	302407	59 Melton Road, Wymondham, Norfolk, NR18 0DB	Residential	13.77	10.04	10.04	0.00	13.95
R57	610928	302416	50 Melton Road, Wymondham, Norfolk, NR18 0DE	Residential	16.81	12.30	12.30	0.00	14.41

Receptor	X	Y	Address	Property Type	Annual mean NO_2 ($\mu g/m^3$)				Annual mean PM_{10} ($\mu g/m^3$)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
R58	612797	302585	20 Flanders Rise, Wymondham, Norfolk, NR18 0YQ	Residential	17.26	12.52	12.68	0.17	14.56
R59	611928	301554	2 Blackthorn Road, Wymondham, Norfolk, NR18 0PY	Residential	14.12	10.20	10.41	0.21	13.64
R60	612568	302704	211 Norwich Road, Wymondham, Norfolk, NR18 0SL	Residential	18.24	13.29	13.21	-0.08	14.87
R61	613105	303029	1 Skipping Block Row, Wymondham, Norfolk, NR18 0SG	Residential	16.99	12.60	11.81	-0.78	15.13
R62	612976	302639	5 Edith Cavell Close, Wymondham, Norfolk, NR18 0YL	Residential	16.94	12.30	12.43	0.14	14.49
R63	610887	301942	40 Pople Street, Wymondham, Norfolk, NR18 0PS	Residential	26.74	19.72	18.92	-0.80	16.10
R64	610828	302299	47 Melton Road, Wymondham, Norfolk, NR18 0DB	Hospital	14.94	10.91	10.94	0.03	14.11
R65	610958	302017	66 Pople Street, Wymondham, Norfolk, NR18 0PS	Residential	17.39	12.91	12.63	-0.28	14.39
R66	611337	301483	6 Browick Road, Wymondham, Norfolk, NR18 0QW	Residential	16.63	11.99	12.24	0.25	14.00
R67	610991	302394	Robert Kett Court, Ethel Gooch Road, Wymondham,	Hospital	13.83	10.02	10.14	0.12	13.93

Receptor	X	Y	Address	Property Type	Annual mean NO_2 ($\mu g/m^3$)				Annual mean PM_{10} ($\mu g/m^3$)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
			Norfolk, NR18 0LH						
R68	611313	301483	2 Browick Road, Wymondham, Norfolk, NR18 0QW	Residential	18.88	13.60	13.97	0.37	14.34
R69	611258	302539	5 Hewitts Lane, Wymondham, Norfolk, NR18 0JA	Residential	12.28	8.93	8.87	-0.06	13.53
R70	611420	301498	14 Browick Road, Wymondham, Norfolk, NR18 0QW	Hospital	15.98	11.49	11.83	0.34	13.92
R71	611410	301710	20 Choseley Court, Wymondham, Norfolk, NR18 0NR	Residential	17.69	12.86	13.06	0.20	14.12
R72	610910	302390	48 Melton Road, Wymondham, Norfolk, NR18 0DB	Residential	19.50	14.24	14.32	0.08	14.79
R73	611335	301587	16 Norwich Road, Wymondham, Norfolk, NR18 0NS	Residential	19.29	14.03	14.31	0.28	14.33
R74	611294	302720	14 St Leonards Close, Wymondham, Norfolk, NR18 0JF	Residential	12.52	9.09	9.06	-0.03	13.60
R75	613045	301490	Browick Hall, Browick Road, Wymondham, Norfolk, NR18 9RB	Residential	11.86	8.67	8.67	0.00	14.17
R76	613094	301736	3 Lower Spinks Lane, Wymondham, Norfolk, NR18 9RD	Residential	11.88	8.65	8.69	0.04	14.17
R77	611871	301513	40 Browick Road, Wymondham,	Residential	14.10	10.15	10.32	0.17	13.63

Receptor	X	Y	Address	Property Type	Annual mean NO_2 ($\mu g/m^3$)				Annual mean PM_{10} ($\mu g/m^3$)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
			Norfolk, NR18 0QN						
R78	614659	304381	33 New Road, Hethersett, Norfolk, NR9 3HJ	Residential	14.47	10.53	10.73	0.20	14.54
R79	611830	302641	Ashleigh County Primary School, Sheffield Road, Wymondham, Norfolk, NR18 0HL	School	12.09	8.75	8.74	-0.01	13.51
R80	612959	302635	4 Edith Cavell Close, Wymondham, Norfolk, NR18 0YL	Residential	16.91	12.27	12.41	0.14	14.49
R81	614930	305035	6 Mill Road, Hethersett, Norfolk, NR9 3DP	Residential	12.69	9.59	9.32	-0.28	14.76
R82	614171	307660	Beck Cottages, Watton Road, Bawburgh, Norfolk, NR9 3P	Residential	11.88	8.71	8.53	-0.17	14.28
R83	614962	305102	48 Great Melton Road, Hethersett, Norfolk, NR9 3HA	Residential	11.53	8.56	8.41	-0.15	14.62
R84	614997	305092	2 Lynch Green, Hethersett, Norfolk, NR9 3JU	Residential	13.90	10.65	10.19	-0.47	14.90
R85	614957	305075	43 Great Melton Road, Hethersett, Norfolk, NR9 3HA	Residential	12.29	9.24	8.99	-0.24	14.71
R86	615957	304947	The Oaks, Norwich Road, Hethersett, Norfolk, NR9 3AA	Residential	15.67	11.62	11.35	-0.27	14.62
R87	617032	304189	Station Cottages, Station Lane, Ketteringham, Norfolk, NR9 3AY	Residential	20.23	14.99	15.55	0.56	15.89
R88	615798	304842	Corner Cottage, Norwich Road,	Residential	15.79	11.65	11.24	-0.41	14.47

Receptor	X	Y	Address	Property Type	Annual mean NO_2 ($\mu g/m^3$)				Annual mean PM_{10} ($\mu g/m^3$)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
			Hethersett, Norfolk, NR9 3AN						
R89	615659	304930	22 Hethersett Middle School, Queens Road, Hethersett, Norfolk, NR9 3DB	School	12.36	9.00	8.96	-0.04	14.01
R90	615701	304817	The Queens Head, Norwich Road, Hethersett, Norfolk, NR9 3DD	Residential	13.50	9.89	9.72	-0.17	14.17
R91	615719	304810	4 The Old Orchard, Hethersett, Norfolk, NR9 3FP	Residential	13.61	9.97	9.81	-0.16	14.19
R92	615294	304328	Oakwood House, Norwich Road, Hethersett, Norfolk, NR9 3DE	Residential	15.30	11.27	11.15	-0.13	14.56
R93	615684	304776	6 Hall Close, Hethersett, Norfolk, NR9 3HY	Residential	12.96	9.46	9.40	-0.06	14.12
R94	619255	304962	8 Meadow Farm Drive, Cringleford, Norfolk, NR4 6TR	Residential	16.53	12.25	12.23	-0.02	14.46
R95	615744	304827	Orchard Bungalow, Norwich Road, Hethersett, Norfolk, NR9 3AL	Residential	16.16	12.00	11.42	-0.58	14.45
R96	615709	303216	Bridge Cottage, Ketteringham Lane, Ketteringham, Norfolk, NR18 9RZ	Residential	15.25	11.23	11.35	0.13	15.20
R97	615341	304234	The Laurels, Ketteringham Lane, Hethersett, Norfolk, NR9 3DF	Residential	13.01	9.55	9.51	-0.04	14.13
R98	615847	304813	Hall Bungalows, Norwich Road, Hethersett, Norfolk, NR9 3AP	Residential	16.83	12.50	12.18	-0.32	14.83

Receptor	X	Y	Address	Property Type	Annual mean NO_2 ($\mu g/m^3$)				Annual mean PM_{10} ($\mu g/m^3$)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
R99	618313	304765	Bridge Cottages, Cantley Lane, Ketteringham, Norfolk, NR4 6TF	Residential	14.09	10.26	10.31	0.05	14.50
R100	615388	304458	The Priory, Norwich Road, Hethersett, Norfolk, NR9 3DE	Residential	13.28	9.71	9.65	-0.05	14.19
R101	615548	304719	4 Cedar Court, Norwich Road, Hethersett, Norfolk, NR9 3FN	Residential	12.44	9.07	9.03	-0.04	14.04
R102	615152	304145	Hethersett Old Hall School, Norwich Road, Hethersett, Norfolk, NR9 3DW	School	14.36	10.62	10.55	-0.07	14.38
R103	615440	304561	The Kings Head, Norwich Road, Hethersett, Norfolk, NR9 3DD	Residential	12.68	9.24	9.21	-0.03	14.08
R104	615315	304205	The School House, Ketteringham Lane, Hethersett, Norfolk, NR9 3DF	Residential	12.92	9.46	9.43	-0.03	14.12
R105	615174	304167	Hethersett Old Hall School, Norwich Road, Hethersett, Norfolk, NR9 3DE	Residential	14.90	11.07	10.97	-0.10	14.48
R106	615720	304828	10 Norwich Road, Hethersett, Norfolk, NR9 3AJ	Residential	14.43	10.71	10.35	-0.36	14.27
R107	615785	304856	2 Haconsfield, Hethersett, Norfolk, NR9 3AW	Residential	14.02	10.32	10.10	-0.21	14.24
R108	615843	304891	19 Haconsfield, Hethersett, Norfolk, NR9 3AW	Residential	13.67	10.02	9.90	-0.12	14.24

Receptor	X	Y	Address	Property Type	Annual mean NO_2 ($\mu g/m^3$)				Annual mean PM_{10} ($\mu g/m^3$)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
R109	615165	304216	Wood Hall Cottage, Norwich Road, Hethersett, Norfolk, NR9 3DE	Residential	15.37	11.49	11.37	-0.12	14.57
R110	618434	304892	2 Meadow Farm Cottage, Cantley Lane, Ketteringham, Norfolk, NR4 6TE	Residential	14.47	10.57	10.46	-0.11	14.54
R111	618316	304849	128 Cantley Lane, Ketteringham, Norfolk, NE4 6TF	Residential	14.05	10.28	10.37	0.08	14.49
R112	618238	307925	Chestnut Nursery, Nursery School, Colney Lane, Colney, Norfolk, NR4 7UT	School	15.72	11.53	11.53	0.00	14.14
R113	619364	305586	Cringleford First And Middle Schools, Cantley Lane, Cringleford, Norfolk, NR4 6UG	School	16.91	12.41	12.54	0.13	14.30
R114	617521	306973	Wheatlands, Hethersett Lane, Colney, Norfolk, NR4 7TT	Residential	16.60	12.39	12.39	0.00	15.94
R115	618232	307279	Busy Bees Nursery, Colney Lane, Colney, Norfolk, NR4 7UX	School	18.74	13.93	13.98	0.04	14.60
R116	616145	305108	8 Benbow Close, Hethersett, Norfolk, NR9 3AH	Residential	13.75	10.12	9.97	-0.15	14.34
R117	615828	307647	Villa San Lorenzo, Watton Road, Little Melton, Norfolk, NR9 3LH	Residential	12.30	9.03	8.88	-0.14	14.62
R118	618253	308077	Oakwood House Nursing Home, Old Watton Road, Colney, Norfolk, NR4 7TP	Hospital	14.84	10.94	10.94	0.00	13.91

Receptor	X	Y	Address	Property Type	Annual mean NO_2 ($\mu g/m^3$)				Annual mean PM_{10} ($\mu g/m^3$)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
R119	618621	305117	102 Cantley Lane, Ketteringham, Norfolk, NR4 6TD	Residential	21.08	15.68	15.54	-0.13	16.53
R120	616575	305170	Fairfield, Station Lane, Hethersett, Norfolk, NR9 3AX	Residential	13.19	9.71	9.59	-0.12	14.21
R121	617670	308663	20 Mawkin Close, Norwich, Norfolk, NR5 9PT	Residential	13.61	9.93	9.88	-0.05	13.61
R122	617710	308437	45 Tizzick Close, Norwich, Norfolk, NR5 9HB	Residential	14.47	10.62	10.55	-0.07	13.74
R123	616003	307693	Ben Kemp Limited, Villa Farm, Watton Road, Little Melton, Norfolk, NR9 3LQ	Residential	14.18	10.40	10.26	-0.14	14.54
R124	617673	308630	21 Mawkin Close, Norwich, Norfolk, NR5 9PT	Residential	13.67	9.99	9.94	-0.05	13.63
R125	618288	307250	University Of East Anglia, Edith Cavell Building, Colney Lane, Colney, Norfolk, NR4 7UL	Education	18.13	13.51	13.55	0.03	14.49
R126	618389	308168	Spire Healthcare, Spire Norwich Hospital, Old Watton Road, Colney, Norfolk, NR4 7TD	Hospital	14.70	10.77	10.75	-0.02	13.87
R127	618031	305568	East Lodge, Norwich Road, Hethersett, Norfolk, NR9 3AU	Residential	20.92	16.07	15.77	-0.29	16.64
R128	618880	305627	98 Round House, Newmarket Road, Cringleford, Norfolk, NR4 6UD	Residential	21.84	16.38	16.52	0.14	16.74
R129	616381	305146	Stewards Cottage, Norwich	Residential	16.22	12.08	11.68	-0.40	14.63

Receptor	X	Y	Address	Property Type	Annual mean NO_2 (µg/m^3)				Annual mean PM_{10} (µg/m^3)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
			Road, Hethersett, Norfolk, NR9 3AS						
R130	616172	305124	16 Grenville Close, Hethersett, Norfolk, NR9 3AG	Residential	14.02	10.35	10.17	-0.18	14.36
R131	619675	305859	1 Hill Grove Residential Home, Colney Lane, Cringleford, Norfolk, NR4 7RE	Hospital	18.93	13.86	14.01	0.15	14.69
R132	618223	307191	Norfolk And Norwich University Hospital, Colney Lane, Colney, Norfolk, NR4 7UY	Hospital	14.26	10.43	10.43	0.00	13.90
R133	619115	305638	70 Newmarket Road, Cringleford, Norfolk, NR4 6UF	Residential	20.11	15.06	15.19	0.14	14.82
R134	616228	305088	Church Farm House, Norwich Road, Hethersett, Norfolk, NR9 3AS	Residential	15.77	11.78	11.43	-0.35	14.60
R135	617731	305564	Nellies Nursery Limited, Thickthorn Farm, Norwich Road, Hethersett, Norfolk, NR9 3AU	School	13.86	10.40	10.17	-0.23	14.05
R136	615575	307716	Rectory House, Watton Road, Bawburgh, Norfolk, NR9 3LH	Residential	12.84	9.45	9.25	-0.20	14.70
R137	618800	306861	69 Colney Lane, Cringleford, Norfolk, NR4 7RQ	Residential	14.15	10.54	10.56	0.02	15.60
R138	617797	308331	51 Mardle Street, Norwich, Norfolk, NR5 9HU	Residential	13.60	9.90	9.85	-0.04	13.62
R139	614995	305066	39B Great Melton Road, Hethersett, Norfolk, NR9 3AB	Residential	12.79	9.58	9.31	-0.27	14.76

Receptor	X	Y	Address	Property Type	Annual mean NO_2 ($\mu g/m^3$)				Annual mean PM_{10} ($\mu g/m^3$)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
R140	618133	305616	Thickthorn Cottages, Norwich Road, Hethersett, Norfolk, NR9 3AU	Residential	19.85	15.01	14.86	-0.14	16.46
R141	616441	305226	Orchard Lodge, Norwich Road, Hethersett, Norfolk, NR9 3AL	Residential	13.80	10.19	10.02	-0.17	14.30
R142	618074	305567	Thickthorn Cottages, Norwich Road, Hethersett, Norfolk, NR9 3AU	Residential	20.37	15.53	15.24	-0.29	16.56
R143	616090	305207	2 Churchfields, Hethersett, Norfolk, NR9 3AF	Residential	12.75	9.34	9.25	-0.08	14.13
R144	616023	305279	14 Churchfields, Hethersett, Norfolk, NR9 3AF	Hospital	12.32	9.00	8.95	-0.05	14.08
R145	621471	303827	8 Brooks Green, Mangreen Lane, Keswick, Norfolk, NR4 6US	Residential	17.13	12.79	12.88	0.09	15.18
R146	616158	307807	Magnolia, Watton Road, Bawburgh, Norfolk, NR9 3LG	Residential	15.88	11.91	11.72	-0.19	14.74
Cringle_1	619080	305564	-	Committed Development	-	13.00	13.13	0.13	-
Cringle_2	618836	305526	-	Committed Development	-	14.86	14.99	0.13	-
Cringle_3	618747	305516	-	Committed Development	-	14.81	14.88	0.07	-
Cringle_4	618632	305483	-	Committed Development	-	15.13	15.04	-0.09	-
Cringle_5	618678	305386	-	Committed Development	-	14.00	13.92	-0.08	-

Receptor	X	Y	Address	Property Type	Annual mean NO_2 (µg/m^3)				Annual mean PM_{10} (µg/m^3)
					Base 2015	DM 2025	DS 2025	DS - DM	Base 2015
Cringle_6	618760	305329	-	Committed Development	-	13.44	13.45	0.01	-
Cringle_7	618839	305254	-	Committed Development	-	13.26	13.30	0.04	-
Cringle_8	618886	305183	-	Committed Development	-	13.40	13.44	0.04	-
Cringle_9	619021	305071	-	Committed Development	-	11.61	11.61	0.00	-

1.6. Ecological receptor results

1.6.1. A total of four ecological transects were modelled to predict air quality concentrations at a local level. The full modelled results are presented in Table 11.

Table 11: Ecological receptor results

Receptor	X	Y	Annual mean NO_x (µg/m^3)			
			Base 2015	DM 2025	DS 2025	DS - DM
Bowthorpe_Marsh_CWS_LNR_01	618139	308361	19.78	13.55	13.47	-0.07
Bowthorpe_Marsh_CWS_LNR_02	618142	308370	18.96	13.16	13.11	-0.05
Bowthorpe_Marsh_CWS_LNR_03	618144	308380	18.52	12.95	12.91	-0.04
Bowthorpe_Marsh_CWS_LNR_04	618146	308390	18.24	12.82	12.79	-0.03
Bowthorpe_Marsh_CWS_LNR_05	618148	308400	18.06	12.73	12.71	-0.03
Bowthorpe_Marsh_CWS_LNR_06	618151	308409	17.92	12.67	12.64	-0.02

Receptor	X	Y	Annual mean NO_x (µg/m^3)			
			Base 2015	DM 2025	DS 2025	DS - DM
Bowthorpe_Marsh_CWS_LNR_07	618153	308419	17.81	12.61	12.59	-0.02
Bowthorpe_Marsh_CWS_LNR_08	618155	308429	17.72	12.57	12.56	-0.02
Bowthorpe_Marsh_CWS_LNR_09	618157	308439	17.65	12.54	12.52	-0.01
Bowthorpe_Marsh_CWS_LNR_10	618160	308448	17.59	12.51	12.49	-0.01
Bowthorpe_Marsh_CWS_LNR_11	618162	308458	17.54	12.48	12.47	-0.01
Bowthorpe_Marsh_CWS_LNR_12	618164	308468	17.49	12.46	12.45	-0.01
Bowthorpe_Marsh_CWS_LNR_13	618166	308478	17.45	12.44	12.43	-0.01
Bowthorpe_Marsh_CWS_LNR_14	618169	308487	17.42	12.42	12.41	-0.01
Bowthorpe_Marsh_CWS_LNR_15	618171	308497	17.39	12.41	12.40	-0.01
Bowthorpe_Marsh_CWS_LNR_16	618173	308507	17.36	12.39	12.39	-0.01
Bowthorpe_Marsh_CWS_LNR_17	618175	308517	17.33	12.38	12.37	-0.01
Bowthorpe_Marsh_CWS_LNR_18	618178	308526	17.31	12.37	12.36	-0.01
Earlham_Colney_CWS_01	618288	308304	19.27	13.33	13.28	-0.05
Earlham_Colney_CWS_02	618292	308313	18.84	13.13	13.09	-0.04
Earlham_Colney_CWS_03	618295	308323	18.56	12.99	12.96	-0.03
Earlham_Colney_CWS_04	618299	308332	18.36	12.89	12.87	-0.03
Earlham_Colney_CWS_05	618302	308341	18.21	12.82	12.80	-0.02

Receptor	X	Y	Annual mean NO_x (µg/m^3)			
			Base 2015	DM 2025	DS 2025	DS - DM
Earlham_Colney_CWS_06	618306	308351	18.09	12.76	12.74	-0.02
Earlham_Colney_CWS_07	618309	308360	18.00	12.72	12.70	-0.02
Earlham_Colney_CWS_08	618313	308369	17.91	12.67	12.66	-0.02
Earlham_Colney_CWS_09	618316	308379	17.84	12.64	12.62	-0.01
Earlham_Colney_CWS_10	618320	308388	17.78	12.61	12.59	-0.01
Earlham_Colney_CWS_11	618323	308397	17.72	12.58	12.57	-0.01
Earlham_Colney_CWS_12	618327	308407	17.68	12.56	12.55	-0.01
Earlham_Colney_CWS_13	618331	308416	17.63	12.53	12.52	-0.01
Earlham_Colney_CWS_14	618334	308425	17.59	12.51	12.50	-0.01
Earlham_Colney_CWS_15	618338	308435	17.55	12.49	12.49	-0.01
Earlham_Colney_CWS_16	618341	308444	17.52	12.48	12.47	-0.01
Earlham_Colney_CWS_17	618345	308454	17.78	12.61	12.59	-0.01
Meadow_Farm_CWS_01	619096	304887	38.86	25.07	25.17	0.10
Meadow_Farm_CWS_02	619105	304891	36.38	23.56	23.59	0.03
Meadow_Farm_CWS_03	619114	304894	34.50	22.41	22.41	0.00
Meadow_Farm_CWS_04	619124	304897	33.01	21.50	21.48	-0.03
Meadow_Farm_CWS_05	619133	304901	31.82	20.78	20.73	-0.04

Receptor	X	Y	Annual mean NO_x (µg/m^3)			
			Base 2015	DM 2025	DS 2025	DS - DM
Meadow_Farm_CWS_06	619143	304904	30.84	20.18	20.13	-0.05
Meadow_Farm_CWS_07	619152	304907	30.01	19.68	19.62	-0.06
Meadow_Farm_CWS_08	619162	304911	29.31	19.25	19.19	-0.06
Meadow_Farm_CWS_09	619171	304914	28.70	18.88	18.82	-0.06
Meadow_Farm_CWS_10	619180	304917	28.17	18.56	18.50	-0.06
Meadow_Farm_CWS_11	619190	304921	27.71	18.28	18.22	-0.06
Meadow_Farm_CWS_12	619199	304924	27.30	18.03	17.97	-0.07
Meadow_Farm_CWS_13	619209	304927	26.93	17.81	17.75	-0.07
Meadow_Farm_CWS_14	619218	304931	26.60	17.61	17.55	-0.06
Intwood_Carr_CWS_01	619925	304369	37.67	24.38	23.91	-0.47
Intwood_Carr_CWS_02	619926	304379	35.28	22.92	22.52	-0.40
Intwood_Carr_CWS_03	619928	304389	33.44	21.80	21.45	-0.35
Intwood_Carr_CWS_04	619929	304399	31.99	20.92	20.61	-0.31
Intwood_Carr_CWS_05	619930	304409	30.83	20.22	19.94	-0.28
Intwood_Carr_CWS_06	619932	304419	29.88	19.64	19.39	-0.25
Intwood_Carr_CWS_07	619933	304429	29.08	19.16	18.93	-0.22
Intwood_Carr_CWS_08	619934	304439	28.40	18.75	18.54	-0.20

Receptor	X	Y	Annual mean NO_x (µg/m^3)			
			Base 2015	DM 2025	DS 2025	DS - DM
Intwood_Carr_CWS_09	619936	304449	27.81	18.39	18.20	-0.19
Intwood_Carr_CWS_10	619937	304459	27.30	18.08	17.91	-0.17
Intwood_Carr_CWS_11	619938	304468	26.85	17.81	17.65	-0.16
Intwood_Carr_CWS_12	619940	304478	26.45	17.57	17.41	-0.15
Intwood_Carr_CWS_13	619941	304488	26.09	17.35	17.21	-0.15
Intwood_Carr_CWS_14	619942	304498	25.76	17.15	17.02	-0.13