

M25 junction 28 improvement scheme

TR010029

6.3 Environmental Statement

Appendix 5.1: Air quality

APFP Regulation 5(2)(a)
Planning Act 2008

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



Infrastructure Planning

Planning Act 2008

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

M25 junction 28 scheme Development Consent Order 202[x]

6.3 ENVIRONMENTAL STATEMENT APPENDIX 5.1: AIR QUALITY

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Appendix 5.1 Air quality

5. Air quality

5.1 PM_{2.5}

- 5.1.1 At the closest PM_{2.5} monitoring station to the Scheme, the Rainham roadside site in the London Borough of Havering, located approximately 10 km from M25 junction 28, concentrations between 2014 and 2018 were below the annual mean air quality criterion of 25 µg/m³, ranging between 11 µg/m³ and 12 µg/m³.
- 5.1.2 Highways England has calculated that a large increase in 10,000 vehicles a day at a point very close to the edge of a motorway (5m), would lead to an increase in PM_{2.5} of approximately 0.5 µg/m³, and even allowing for an uncertainty estimate of a factor of 2, would result in a maximum change of 1 µg/m³.
- 5.1.3 Combining a maximum increase in PM_{2.5} roadside concentrations of 1 µg/m³ with a measured concentration of 12 µg/m³, as recorded at Rainham roadside monitoring site in 2017, would result in a concentration of 13 µg/m³, which is 12 µg/m³ below the limit value. On this basis there is not considered to be a risk that the Scheme would exceed the PM_{2.5} air quality criterion and consequently an assessment of PM_{2.5} has not been undertaken for this Scheme.

5.2 Receptors

Table 5.1: Discrete receptors included in the air quality assessment

Receptor ID	Name	X	Y	Local Authority
R1	Residential Property at Wingrave Crescent	557404	192814	Brentwood
R2	Residential Property at Leonard Way	557441	192940	Brentwood
R3	Residential Property at Nags Head Lane	557175	192055	Brentwood
R4	Residential Property at Wingrave Crescent	557417	192769	Brentwood
R5	Residential Property at Nags Head Lane	556981	191814	Brentwood
R6	Property at Grove Farm	556606	192447	Havering
R7	Residential Property at Nags Head Lane	557113	191984	Brentwood
R8	Residential Property at Wingrave Crescent	557394	192862	Brentwood
R9	Residential Property at Wingrave Crescent	557432	192865	Brentwood
R10	Residential Property at Nags Head Lane	557154	192032	Brentwood
R11	Residential Property at Wingrave Crescent	557409	192916	Brentwood
R12	Residential Property at Wingrave Crescent	557409	192916	Brentwood
R13	Residential Property at Nags Head Lane	557022	191871	Brentwood

Receptor ID	Name	X	Y	Local Authority
R14	Residential Property at Wingrave Crescent	557436	192869	Brentwood
R15	Residential Property at Leonard Way	557440	192924	Brentwood
R16	Residential Property at Nags Head Lane	557011	191858	Brentwood
R17	Residential Property at Wingrave Crescent	557409	192916	Brentwood
R18	Residential Property at Colchester Road	556042	191916	Havering
R19	Residential Property at Nags Head Lane	556998	191832	Brentwood
R20	Residential Property at Wingrave Crescent	557399	192857	Brentwood
R21	Residential Property at Leonard Way	557441	192934	Brentwood
R22	Residential Property at Wingrave Crescent	557410	192791	Brentwood
R23	Residential Property at Nags Head Lane	557162	192043	Brentwood
R24	Residential Property at Tern Way	557451	192856	Brentwood
R25	Residential Property at Wingrave Crescent	557410	192786	Brentwood
R26	Residential Property at Nags Head Lane	557183	192075	Brentwood
R27	Residential Property at Wingrave Crescent	557414	192774	Brentwood
R28	Residential Property at Wingrave Crescent	557409	192916	Brentwood
R29	Residential Property at Brook Street	557029	192500	Brentwood
R30	Residential Property at Wingrave Crescent	557413	192781	Brentwood
R31	Residential Property at Wingrave Crescent	557387	192897	Brentwood
R32	Residential Property at Tern Way	557453	192851	Brentwood
R33	Residential Property at Nags Head Lane	556956	191810	Brentwood
R34	Residential Property at Brook Street	556961	192282	Brentwood
R35	Residential Property at Nags Head Lane	556989	191826	Brentwood
R36	Residential Property at Nags Head Lane	556974	191808	Brentwood
R37	Residential Property at Tern Way	557450	192799	Brentwood
R38	Residential Property at Wingrave Crescent	557384	192893	Brentwood
R39	Residential Property at Nags Head Lane	557206	192117	Brentwood
R40	Residential Property at Wingrave Crescent	557409	192916	Brentwood

Receptor ID	Name	X	Y	Local Authority
R41	Residential Property at Wingrave Crescent	557383	192879	Brentwood
R42	Residential Property at Wingrave Crescent	557409	192916	Brentwood
R43	Residential Property at Nags Head Lane	557131	191989	Brentwood
R44	Residential Property at Nags Head Lane	557037	191875	Brentwood
R45	Residential Property at Wingrave Crescent	557428	192860	Brentwood
R46	Residential Property at Leonard Way	557441	192919	Brentwood
R47*	Holiday Inn at Brook Street	557183	192614	Brentwood
R48	Residential Property at Leonard Way	557440	192929	Brentwood
R49	Residential Property at Nags Head Lane	557200	192105	Brentwood
R50	Residential Property at Wingrave Crescent	557409	192916	Brentwood
R51	Residential Property at Wingrave Crescent	557395	192907	Brentwood
R52	Residential Property at Nags Head Lane	557031	191797	Brentwood
R53	Residential Property at Nags Head Lane	557020	191794	Brentwood
R54	Residential Property at Wingrave Crescent	557412	192837	Brentwood
R55	Residential Property at Wingrave Crescent	557406	192799	Brentwood
R56	Residential Property at River Road	557442	192913	Brentwood
R57	Residential Property at Wingrave Crescent	557392	192868	Brentwood
R58	Residential Property at Nags Head Lane	557152	192026	Brentwood
R59	Farm / Non-Residential Associated Building at Putwell Bridge Farm	556645	192207	Brentwood
R60	Residential Property at Wingrave Crescent	557425	192856	Brentwood
R61	Residential Property at Wingrave Crescent	557388	192873	Brentwood
R62	Residential Property at Wingrave Crescent	557409	192916	Brentwood
R63	Residential Property at Nags Head Lane	557143	192020	Brentwood
R64	Residential Property at Colchester Road	556047	191919	Haverling
R65	Residential Property at Nags Head Lane	557184	192067	Brentwood
R66	Residential Property at Wingrave Crescent	557409	192916	Brentwood

Receptor ID	Name	X	Y	Local Authority
R67	Residential Property at Nags Head Lane	557191	192091	Brentwood
R68	Residential Property at Wingrave Crescent	557418	192761	Brentwood
R69	Residential Property at Brook Street	557021	192497	Brentwood
R70	Farm / Non-Residential Associated Building at Putwell Bridge Farm	556630	192228	Havering
R71	Property at Grove Farm	556627	192397	Havering
R72	Property at Grove Farm	556624	192389	Havering
R73	Property at Grove Farm	556616	192417	Havering
R74	Property at Grove Farm	556611	192448	Havering
R75	Boundary of Travelers Site South of A12	556443	192148	Havering
R76	Property at Travelers Site South of A12	556430	192141	Havering
R77	Property at Travelers Site South of A12	556426	192126	Havering
R78	Property at Travelers Site South of A12	556450	192120	Havering
R79*	Maylands Golf Club	556149	192515	Havering
*Selected for comparison with 1-hour mean NO ₂ AQS objective, and/or 24-hour mean PM ₁₀ AQS objective				

5.3 Further details on dispersion modelling

- 5.3.1 The dispersion model was set up based on the following key inputs and assumptions:
- Road sources were modelled using the ADMS-Roads source representation tool.
 - Ordnance Survey Master Map topography base mapping was used to define the road geometry.
 - A single centreline was entered in the model for modelled roads with the exception of dual carriageways and motorway links which have a centreline included for both carriageway directions.
 - Road widths assumed a standard single carriageway width of 3.65 m where obtaining distinct widths was not possible from Ordnance Survey Master Map data.
- 5.3.2 Hourly sequential meteorological data for 2015 London City meteorological station was used. The parameters required by the model included: date, time, wind direction (angle wind blowing from), wind speed (at 10 metres above ground level), surface air temperature (degrees Celsius), and cloud cover (oktas – or eighths of sky covered).
- 5.3.3 A latitude of 51.5 degrees was selected. This determines times of sunrise and sunset for each day throughout the year, which in turn affects stability calculations.

- 5.3.4 Surface roughness coefficients have been defined as 0.5 metres (representative of parkland, open suburbia) for the air quality study area and 1.0 for the meteorological site (representative of cities and woodlands). The surface roughness is important in the approximation of turbulent conditions within the atmospheric boundary layer and thus in the estimation of pollutant concentrations at receptors.
- 5.3.5 Minimum Monin-Obukhov length (to reasonably limit the occurrence of very stable atmospheric conditions) has been defined as 100 metres at the meteorological site (representative of small towns) and as 30 at the dispersion site (representative of mixed urban/industrial). This parameter limits the occurrence of very stable boundary layer conditions (i.e. when the air is still) to a degree that is appropriate to the general land-use. In general the potential for very stable conditions is lowest in large urban areas where the 'heat island' effect promoting turbulent motion in the boundary layer is strongest.

5.4 Comparison of background concentrations

Table 5.2: Comparison of measured and mapped background NO₂ concentrations (µg/m³) at monitoring sites within 3 km of the Scheme

Site name	Local Authority	Site type*	Grid reference	Measured concentration 2015	Mapped concentration 2015	% difference
BRW 1^	Brentwood	UB	559500,193500	24.0	17.9	-25%
BRW 16	Brentwood	UB	557500,192500	27.2	18.6	-32%
BRW 18	Brentwood	R	557500,193500	23.5	18.0	-23%
BRW 32	Brentwood	UB	556500,192500	32.6	24.1	-26%
BRW 33	Brentwood	UB	559500,195500	23.5	16.9	-28%
BRW 36	Brentwood	R	556500,194500	15.8	13.9	-12%
HAV 22, HAV 23, HAV24	Havering	UB	553500,190500	26.6	20.5	-23%
HAV25	Havering	UB	553500,193500	22.9	13.3	-42%
HAV35	Havering	UB	554500,193500	24.2	14.1	-42%
HAV 53, HAV	Havering	UB	553500,192500	22.9	14.9	-35%

Site name	Local Authority	Site type*	Grid reference	Measured concentration 2015	Mapped concentration 2015	% difference
54, HAV55						
M25J28I_025_0116	Havering	B	553500,191500	22.5	16.3	-27%
Average difference for 11 sites: -30%						
*UB = urban background; R = Rural; B = Background						
^ Continuous Monitoring Site						

5.5 Verification

Table 5.3: Diffusion tube sites excluded from model verification

Site ID	X, Y	Reason for exclusion from verification
BRW 7	557118, 191978	It is likely this tube is screened by vegetation which results in lower than expected concentrations (it is noted as being located on a fence trellis in the LAQM report). In the interest of conservative model results, this tube has been removed.
M25J28I_001_0116	557030, 192496	Located at a kerbside location, where a more representative diffusion tube is available in BRW 6
HAV37	555723, 191750	Located on the edge of the air quality model domain and therefore not all sources are represented in this location
M25J28I_005_0116	556788, 191618	
M25J28I_013_0116	556000, 191900	
M25J28I_015_0116	555801, 191784	
M25J28I_024_0116	557177, 193141	

Table 5.4: Comparison of unadjusted modelled and measured NO₂ concentrations (µg/m³) for study area

Site ID	Modelled NO ₂	Measured NO ₂	Modelled – Measured	Modelled / Measured	% Difference
BRW 5	28.7	42.7	-14.0	0.67	-32.8%
BRW 6	25.1	38.1	-13.0	0.66	-34.1%
BRW 16	21.9	27.2	-5.3	0.81	-19.5%
BRW 32	23.1	32.6	-9.5	0.71	-29.1%
M25J28I_002_0116	24.9	36.9	-12.0	0.67	-32.5%
M25J28I_003_0116	21.9	27.9	-6.0	0.78	-21.5%
M25J28I_004_0116	21.0	28.2	-7.2	0.74	-25.5%

Site ID	Modelled NO ₂	Measured NO ₂	Modelled – Measured	Modelled / Measured	% Difference
M25J28I_023_0116	20.1	29.3	-9.2	0.69	-31.4%
CP7	30.3	40.8	-10.5	0.74	-25.7%
M25J28I_022_0116	27.0	45.4	-18.4	0.59	-40.5%

Table 5.5: Comparison of modelled and measured NO_x concentrations (µg/m³) for study area

Site ID	Modelled Road NO _x	Measured Road NO _x	Modelled – Measured	Modelled / Measured	% Difference
BRW 5	28.9	60.8	-31.9	0.48	-52.5%
BRW 6	17.1	45.3	-28.2	0.38	-62.3%
BRW 16	10.8	21.3	-10.5	0.51	-49.3%
BRW 32	17.3	37.2	-19.9	0.47	-53.5%
M25J28I_002_0116	16.7	42.4	-25.7	0.39	-60.6%
M25J28I_003_0116	14.6	26.9	-12.3	0.54	-45.7%
M25J28I_004_0116	12.7	27.5	-14.8	0.46	-53.8%
M25J28I_023_0116	7.2	25.8	-18.6	0.28	-72.1%
CP7	32.2	56.2	-24.0	0.57	-42.7%
M25J28I_022_0116	25.3	67.4	-42.1	0.38	-62.5%

Table 5.6: RMSE and adjustment factors used in air quality NO₂ verification for study area

Number of monitoring sites included in verification	Number of monitoring sites within ±25% of the monitored concentration pre-adjustment	Raw RMSE (pre-adjustment µg/m ³)	Model adjustment factor	Adjusted model RMSE	Fractional bias (post adjustment)	Number of monitoring sites within ±25% of the monitored concentration post-adjustment
10	2	11.16	2.18	3.27	0.02	10

Figure 5.1: Comparison of modelled and measured NO₂ concentrations (µg/m³) before and after adjustment for study area

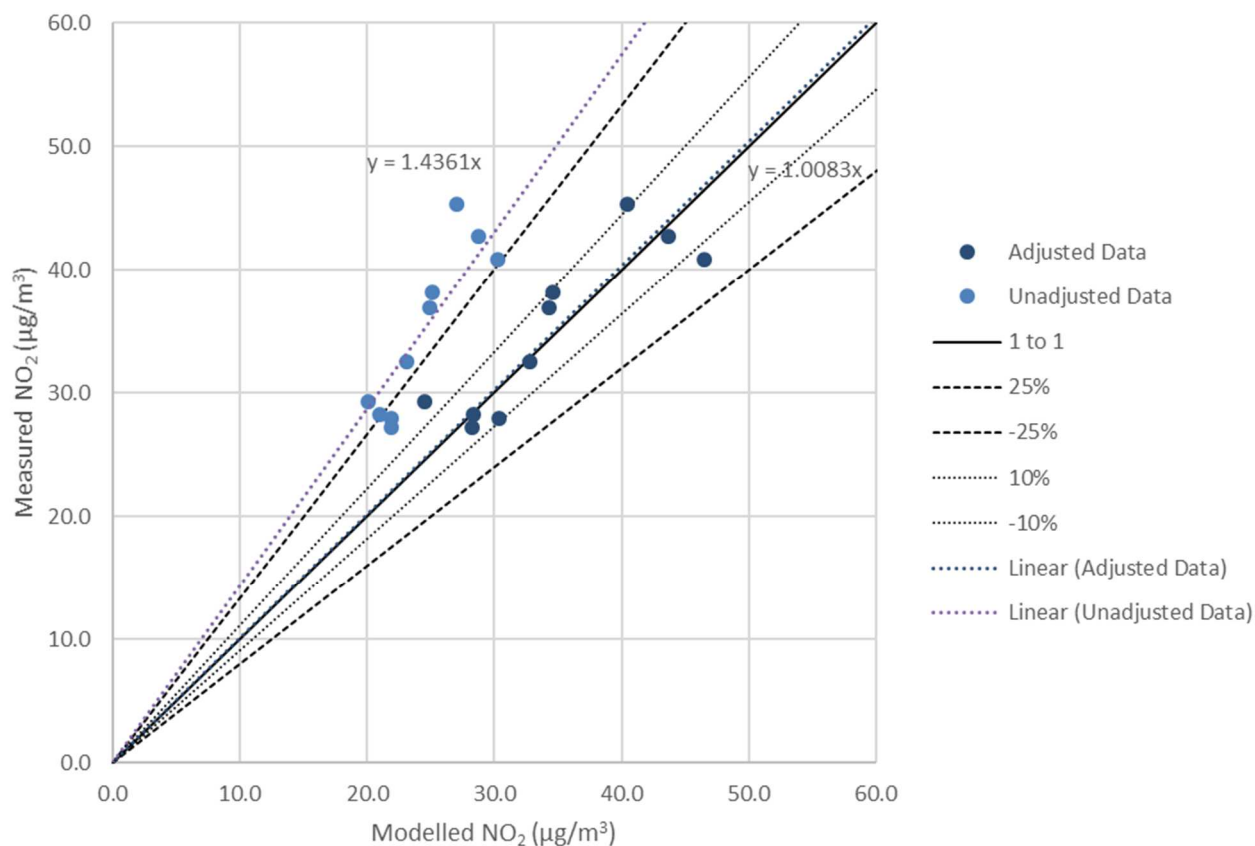


Table 5.7: Comparison of adjusted modelled and measured NO₂ concentrations (µg/m³) for study area

Site ID	Adjusted modelled total NO ₂	Measured NO ₂	Modelled - Measured	Modelled / Measured	% Difference
BRW 5	43.7	42.7	1.0	1.02	+2.3%
BRW 6	34.6	38.1	-3.5	0.91	-9.2%
BRW 16	28.2	27.2	1.0	1.04	+3.7%
BRW 32	32.8	32.6	0.2	1.01	+0.6%
M25J28I_002_011 6	34.3	36.9	-2.6	0.93	-7.0%
M25J28I_003_011 6	30.3	27.9	2.4	1.09	+8.6%
M25J28I_004_011 6	28.4	28.2	0.2	1.01	+0.7%
M25J28I_023_011 6	24.5	29.3	-4.8	0.84	-16.4%
CP7	46.5	40.8	5.7	1.14	+14.0%
M25J28I_022_011 6	40.5	45.4	-4.9	0.89	-10.8%

5.6 Trend analysis

Table 5.8: Summary of annual mean NO₂ trend analysis

Site ID	Site type*	Monitoring type^	Local Authority	Within air quality study area?	Number of data points	S value	Sen's slope	Significant (Y/N)
BRW 16	UB	DT	Brentwood	Y	7	+1	+0.3	N
BRW 32	UB	DT	Brentwood	Y	7	-1	-0.1	N
BRW 5	Rd	DT	Brentwood	Y	7	+1	0.0	N
BRW 6	Rd	DT	Brentwood	Y	7	-1	0.0	N
BRW 7	Rd	DT	Brentwood	Y	7	+1	+0.2	N
BRW 18	UB	DT	Brentwood	N	7	-1	0.0	N
BRW 28	UB	DT	Brentwood	N	7	+5	+1.4	N
BRW 33	UB	DT	Brentwood	N	7	-3	-0.7	N
BRW 36	R	DT	Brentwood	N	7	-1	0.0	N
HAV2, HAV5, HAV6	UC	DT	Havering	N	7	-9	-1.5	N
HAV1, HAV7, HAV8	UC	DT	Havering	N	7	-7	-0.6	N
HAV3	UB	DT	Havering	N	7	-3	-0.4	N
HAV4	UB	DT	Havering	N	7	-2	-0.4	N
HAV9, HAV10, HAV11	UC	DT	Havering	N	6	-8	-0.8	Y+
HAV22, HAV23, HAV24	UB	DT	Havering	N	6	+2	+1.0	N
HAV25	UB	DT	Havering	N	6	0	+0.2	N
HAV26	UB	DT	Havering	N	6	+4	+1.2	N
HAV30	UB	DT	Havering	N	6	0	+0.5	N
HAV35	UB	DT	Havering	N	6	+4	+0.8	N
HAV36	R	DT	Havering	N	6	+4	+1.1	N
HAV48	UB	DT	Havering	N	5	0	+0.6	N

Site ID	Site type*	Monitoring type^	Local Authority	Within air quality study area?	Number of data points	S value	Sen's slope	Significant (Y/N)
HAV51	UB	DT	Havering	N	5	-2	-0.3	N
HAV53, HAV54, HAV55	UB	DT	Havering	N	3	+1	+0.7	N
HAV57	UC	DT	Havering	N	5	+4	+1.5	N
HAV58, HAV59, HAV60	UC	DT	Havering	N	5	-2	-0.8	N
BRW1	UB	CMS	Brentwood	N	6	-4	-0.3	N
HV1	Rd	CMS	Havering	N	7	-1	-0.1	N
HV3	Rd	CMS	Havering	N	7	+5	+0.9	N
* UB = Urban background; R = Rural; Rd = Roadside; UC = Urban Centre ^ DT = Diffusion Tube; CMS = Continuous Monitoring Station + p = 0.1								

5.7 Results

Gap factor calculations

Table 5.9: Derivation of GAP factor in accordance with Highways England IAN 170/12v3 for human health receptors

Receptor ID	Base 2015 NO ₂	Projected base NO ₂	2022 Long term adjustment factor / 2015 long term adjustment factor (Ratio B)	Projected base NO ₂ / base 2015 NO ₂ (Ratio A)	Gap factor (Ratio B/ Ratio A)
R1	24.0	16.1	0.95	0.67	1.41
R2	25.9	17.2	0.95	0.66	1.44
R3	27.0	16.7	0.95	0.62	1.53
R4	24.2	16.4	0.95	0.68	1.41
R5	23.3	14.8	0.95	0.64	1.49
R6	30.3	18.1	0.95	0.60	1.59
R7	36.1	20.2	0.95	0.56	1.70
R8	25.0	16.7	0.95	0.67	1.43
R9	23.6	15.9	0.95	0.67	1.41
R10	28.8	17.4	0.95	0.61	1.57
R11	26.8	17.7	0.95	0.66	1.44
R12	26.8	17.7	0.95	0.66	1.44

Receptor ID	Base 2015 NO ₂	Projected base NO ₂	2022 Long term adjustment factor / 2015 long term adjustment factor (Ratio B)	Projected base NO ₂ / base 2015 NO ₂ (Ratio A)	Gap factor (Ratio B/ Ratio A)
R13	28.1	16.6	0.95	0.59	1.61
R14	23.6	15.9	0.95	0.67	1.41
R15	25.0	16.7	0.95	0.67	1.43
R16	25.8	15.6	0.95	0.61	1.57
R17	26.8	17.7	0.95	0.66	1.44
R18	26.6	18.0	0.95	0.68	1.40
R19	24.7	15.4	0.95	0.62	1.52
R20	24.7	16.5	0.95	0.67	1.42
R21	25.5	17.0	0.95	0.66	1.43
R22	23.9	16.1	0.95	0.67	1.41
R23	27.8	17.0	0.95	0.61	1.55
R24	23.1	15.6	0.95	0.68	1.41
R25	24.0	16.2	0.95	0.67	1.41
R26	26.2	16.4	0.95	0.63	1.52
R27	24.1	16.3	0.95	0.67	1.41
R28	26.8	17.7	0.95	0.66	1.44
R29	37.9	24.6	0.95	0.65	1.46
R30	24.0	16.2	0.95	0.67	1.41
R31	27.3	18.0	0.95	0.66	1.44
R32	23.0	15.5	0.95	0.68	1.41
R33	22.2	14.4	0.95	0.65	1.47
R34	34.0	19.7	0.95	0.58	1.64
R35	24.0	15.1	0.95	0.63	1.51
R36	22.9	14.7	0.95	0.64	1.49
R37	23.3	15.8	0.95	0.68	1.40
R38	27.3	18.0	0.95	0.66	1.44
R39	24.9	15.9	0.95	0.64	1.49
R40	26.8	17.7	0.95	0.66	1.44
R41	26.5	17.5	0.95	0.66	1.44
R42	26.8	17.7	0.95	0.66	1.44
R43	31.6	18.2	0.95	0.58	1.65
R44	31.4	18.0	0.95	0.57	1.66

Receptor ID	Base 2015 NO ₂	Projected base NO ₂	2022 Long term adjustment factor / 2015 long term adjustment factor (Ratio B)	Projected base NO ₂ / base 2015 NO ₂ (Ratio A)	Gap factor (Ratio B/ Ratio A)
R45	23.6	15.9	0.95	0.67	1.41
R46	24.8	16.5	0.95	0.67	1.43
R47*	27.3	18.0	0.95	0.66	1.44
R48	25.3	16.8	0.95	0.66	1.43
R49	25.2	16.0	0.95	0.64	1.50
R50	26.8	17.7	0.95	0.66	1.44
R51	27.4	18.0	0.95	0.66	1.44
R52	25.7	15.7	0.95	0.61	1.56
R53	24.5	15.2	0.95	0.62	1.54
R54	23.8	16.0	0.95	0.67	1.41
R55	23.9	16.1	0.95	0.67	1.41
R56	24.5	16.4	0.95	0.67	1.42
R57	25.3	16.9	0.95	0.67	1.43
R58	29.1	17.6	0.95	0.60	1.58
R59	24.6	16.0	0.95	0.65	1.46
R60	23.7	15.9	0.95	0.67	1.41
R61	25.8	17.1	0.95	0.66	1.43
R62	26.8	17.7	0.95	0.66	1.44
R63	30.1	18.0	0.95	0.60	1.59
R64	26.6	18.1	0.95	0.68	1.40
R65	26.4	16.5	0.95	0.63	1.52
R66	26.8	17.7	0.95	0.66	1.44
R67	25.6	16.2	0.95	0.63	1.51
R68	24.5	16.5	0.95	0.67	1.41
R69	36.2	23.5	0.95	0.65	1.47
R70	28.2	18.4	0.95	0.65	1.46
R71	30.0	18.4	0.95	0.61	1.55
R72	29.2	18.0	0.95	0.62	1.54
R73	29.4	17.9	0.95	0.61	1.56
R74	31.2	18.6	0.95	0.60	1.60
R75	31.9	21.1	0.95	0.66	1.44
R76	31.0	20.6	0.95	0.66	1.43

Receptor ID	Base 2015 NO ₂	Projected base NO ₂	2022 Long term adjustment factor / 2015 long term adjustment factor (Ratio B)	Projected base NO ₂ / base 2015 NO ₂ (Ratio A)	Gap factor (Ratio B/ Ratio A)
R77	26.1	17.5	0.95	0.67	1.42
R78	23.1	15.6	0.95	0.67	1.41
R79*	17.3	12.0	0.95	0.69	1.37
*Selected for comparison with 1-hour mean NO ₂ AQS objective, and/or 24-hour mean PM ₁₀ AQS objective					

Table 5.10: Estimated annual mean NO₂ concentrations (µg/m³) for human health receptors, Highways England IAN 170/12v3 method

Receptor ID	Background 2015 NO ₂	2015 base NO ₂	Background 2022 NO ₂	2022 DM NO ₂	2022 DS NO ₂	2022 NO ₂ change	2022 NO ₂ change criteria
R1	16.3	24.0	11.9	23.6	23.7	+0.1	Imperceptible
R2	16.3	25.9	11.9	25.5	25.6	+0.1	Imperceptible
R3	16.3	27.0	11.9	26.9	26.9	<0.1	Imperceptible
R4	16.3	24.2	11.9	24.1	24.1	<0.1	Imperceptible
R5	15.2	23.3	11.3	23.0	23.0	<0.1	Imperceptible
R6	14.1	30.3	10.6	30.3	31.0	+0.7	Small increase
R7	14.3	36.1	10.7	36.8	36.9	+0.1	Imperceptible
R8	16.3	25.0	11.9	24.7	24.8	+0.1	Imperceptible
R9	16.3	23.6	11.9	23.2	23.3	+0.1	Imperceptible
R10	16.3	28.8	11.9	28.8	28.8	<0.1	Imperceptible
R11	16.3	26.8	11.9	26.5	26.5	<0.1	Imperceptible
R12	16.3	26.8	11.9	26.5	26.5	<0.1	Imperceptible
R13	14.3	28.1	10.7	28.1	28.1	<0.1	Imperceptible
R14	16.3	23.6	11.9	23.2	23.2	<0.1	Imperceptible
R15	16.3	25.0	11.9	24.7	24.7	<0.1	Imperceptible
R16	14.3	25.8	10.7	25.7	25.7	<0.1	Imperceptible
R17	16.3	26.8	11.9	26.5	26.5	<0.1	Imperceptible
R18	15.2	26.6	11.3	26.5	26.6	+0.1	Imperceptible
R19	15.2	24.7	11.3	24.4	24.4	<0.1	Imperceptible
R20	16.3	24.7	11.9	24.4	24.4	<0.1	Imperceptible
R21	16.3	25.5	11.9	25.2	25.2	<0.1	Imperceptible
R22	16.3	23.9	11.9	23.6	23.7	+0.1	Imperceptible
R23	16.3	27.8	11.9	27.8	27.8	<0.1	Imperceptible

Receptor ID	Background 2015 NO ₂	2015 base NO ₂	Background 2022 NO ₂	2022 DM NO ₂	2022 DS NO ₂	2022 NO ₂ change	2022 NO ₂ change criteria
R24	16.3	23.1	11.9	22.7	22.7	<0.1	Imperceptible
R25	16.3	24.0	11.9	23.7	23.8	+0.1	Imperceptible
R26	16.3	26.2	11.9	26.0	26.0	<0.1	Imperceptible
R27	16.3	24.1	11.9	23.9	24.0	+0.1	Imperceptible
R28	16.3	26.8	11.9	26.5	26.5	<0.1	Imperceptible
R29	16.3	37.9	11.9	38.7	38.9	+0.2	Imperceptible
R30	16.3	24.0	11.9	23.8	23.8	<0.1	Imperceptible
R31	16.3	27.3	11.9	27.1	27.1	<0.1	Imperceptible
R32	16.3	23.0	11.9	22.6	22.6	<0.1	Imperceptible
R33	15.2	22.2	11.3	21.8	21.9	+0.1	Imperceptible
R34	14.1	34.0	10.6	34.6	34.8	+0.2	Imperceptible
R35	15.2	24.0	11.3	23.7	23.7	<0.1	Imperceptible
R36	15.2	22.9	11.3	22.6	22.6	<0.1	Imperceptible
R37	16.3	23.3	11.9	23.0	23.1	+0.1	Imperceptible
R38	16.3	27.3	11.9	27.0	27.1	+0.1	Imperceptible
R39	16.3	24.9	11.9	24.7	24.7	<0.1	Imperceptible
R40	16.3	26.8	11.9	26.5	26.5	<0.1	Imperceptible
R41	16.3	26.5	11.9	26.2	26.3	+0.1	Imperceptible
R42	16.3	26.8	11.9	26.5	26.5	<0.1	Imperceptible
R43	14.3	31.6	10.7	32.0	32.0	<0.1	Imperceptible
R44	14.3	31.4	10.7	31.6	31.6	<0.1	Imperceptible
R45	16.3	23.6	11.9	23.3	23.3	<0.1	Imperceptible
R46	16.3	24.8	11.9	24.4	24.4	<0.1	Imperceptible
R47*	16.3	27.3	11.9	27.2	27.3	N/A	N/A
R48	16.3	25.3	11.9	24.9	25.0	+0.1	Imperceptible
R49	16.3	25.2	11.9	25.0	25.0	<0.1	Imperceptible
R50	16.3	26.8	11.9	26.5	26.5	<0.1	Imperceptible
R51	16.3	27.4	11.9	27.1	27.2	+0.1	Imperceptible
R52	14.3	25.7	10.7	25.6	25.6	<0.1	Imperceptible
R53	14.3	24.5	10.7	24.4	24.4	<0.1	Imperceptible
R54	16.3	23.8	11.9	23.5	23.5	<0.1	Imperceptible
R55	16.3	23.9	11.9	23.7	23.7	<0.1	Imperceptible
R56	16.3	24.5	11.9	24.1	24.1	<0.1	Imperceptible

Receptor ID	Background 2015 NO ₂	2015 base NO ₂	Background 2022 NO ₂	2022 DM NO ₂	2022 DS NO ₂	2022 NO ₂ change	2022 NO ₂ change criteria
R57	16.3	25.3	11.9	25.0	25.1	+0.1	Imperceptible
R58	16.3	29.1	11.9	29.1	29.1	<0.1	Imperceptible
R59	14.1	24.6	10.6	24.6	24.3	-0.3	Imperceptible
R60	16.3	23.7	11.9	23.3	23.4	+0.1	Imperceptible
R61	16.3	25.8	11.9	25.5	25.5	<0.1	Imperceptible
R62	16.3	26.8	11.9	26.5	26.5	<0.1	Imperceptible
R63	16.3	30.1	11.9	30.2	30.2	<0.1	Imperceptible
R64	15.2	26.6	11.3	26.5	26.7	+0.2	Imperceptible
R65	16.3	26.4	11.9	26.3	26.3	<0.1	Imperceptible
R66	16.3	26.8	11.9	26.5	26.5	<0.1	Imperceptible
R67	16.3	25.6	11.9	25.4	25.4	<0.1	Imperceptible
R68	16.3	24.5	11.9	24.4	24.4	<0.1	Imperceptible
R69	16.3	36.2	11.9	36.9	37.1	+0.2	Imperceptible
R70	14.1	28.2	10.6	28.5	28.1	-0.4	Imperceptible
R71	14.1	30.0	10.6	30.2	30.9	+0.7	Small increase
R72	14.1	29.2	10.6	29.3	30.3	+1.0	Small increase
R73	14.1	29.4	10.6	29.5	30.0	+0.5	Small increase
R74	14.1	31.2	10.6	31.3	32.0	+0.7	Small increase
R75	14.1	31.9	10.6	32.4	30.6	-1.8	Small decrease
R76	14.1	31.0	10.6	31.4	29.9	-1.5	Small decrease
R77	14.1	26.1	10.6	26.2	25.3	-0.9	Small decrease
R78	14.1	23.1	10.6	22.9	22.4	-0.5	Small decrease
R79*	14.1	17.3	10.6	16.7	17.5	N/A	N/A
*Selected for comparison with 1-hour mean NO ₂ AQS objective, and/or 24-hour mean PM ₁₀ AQS objective							

Table 5.11: Estimated annual mean NO₂ concentrations (µg/m³) for human health receptors, Defra TG16 method

Receptor ID	Background 2015 NO ₂	2015 base NO ₂	Background 2022 NO ₂	2022 DM NO ₂	2022 DS NO ₂	2022 NO ₂ change	2022 NO ₂ change criteria
R1	11.9	24.0	11.9	16.7	16.8	+0.1	Imperceptible
R2	11.9	25.9	11.9	17.8	17.8	<0.1	Imperceptible
R3	11.9	27.0	11.9	17.5	17.5	<0.1	Imperceptible
R4	11.9	24.2	11.9	17.1	17.1	<0.1	Imperceptible
R5	11.3	23.3	11.3	15.4	15.4	<0.1	Imperceptible
R6	10.6	30.3	10.6	19.1	19.5	+0.4	Imperceptible
R7	10.7	36.1	10.7	21.7	21.8	+0.1	Imperceptible
R8	11.9	25.0	11.9	17.3	17.4	+0.1	Imperceptible
R9	11.9	23.6	11.9	16.4	16.5	+0.1	Imperceptible
R10	11.9	28.8	11.9	18.3	18.3	<0.1	Imperceptible
R11	11.9	26.8	11.9	18.4	18.4	<0.1	Imperceptible
R12	11.9	26.8	11.9	18.4	18.4	<0.1	Imperceptible
R13	10.7	28.1	10.7	17.5	17.5	<0.1	Imperceptible
R14	11.9	23.6	11.9	16.4	16.4	<0.1	Imperceptible
R15	11.9	25.0	11.9	17.3	17.3	<0.1	Imperceptible
R16	10.7	25.8	10.7	16.4	16.4	<0.1	Imperceptible
R17	11.9	26.8	11.9	18.4	18.4	<0.1	Imperceptible
R18	11.3	26.6	11.3	18.9	19.0	+0.1	Imperceptible
R19	11.3	24.7	11.3	16.0	16.0	<0.1	Imperceptible
R20	11.9	24.7	11.9	17.1	17.2	+0.1	Imperceptible
R21	11.9	25.5	11.9	17.6	17.6	<0.1	Imperceptible
R22	11.9	23.9	11.9	16.8	16.8	<0.1	Imperceptible
R23	11.9	27.8	11.9	17.9	17.9	<0.1	Imperceptible
R24	11.9	23.1	11.9	16.1	16.1	<0.1	Imperceptible
R25	11.9	24.0	11.9	16.8	16.9	+0.1	Imperceptible
R26	11.9	26.2	11.9	17.1	17.2	+0.1	Imperceptible
R27	11.9	24.1	11.9	17.0	17.0	<0.1	Imperceptible
R28	11.9	26.8	11.9	18.4	18.4	<0.1	Imperceptible
R29	11.9	37.9	11.9	26.5	26.6	+0.1	Imperceptible
R30	11.9	24.0	11.9	16.9	16.9	<0.1	Imperceptible
R31	11.9	27.3	11.9	18.7	18.8	+0.1	Imperceptible
R32	11.9	23.0	11.9	16.1	16.1	<0.1	Imperceptible

Receptor ID	Background 2015 NO ₂	2015 base NO ₂	Background 2022 NO ₂	2022 DM NO ₂	2022 DS NO ₂	2022 NO ₂ change	2022 NO ₂ change criteria
R33	11.3	22.2	11.3	14.9	14.9	<0.1	Imperceptible
R34	10.6	34.0	10.6	21.1	21.2	+0.1	Imperceptible
R35	11.3	24.0	11.3	15.7	15.7	<0.1	Imperceptible
R36	11.3	22.9	11.3	15.2	15.2	<0.1	Imperceptible
R37	11.9	23.3	11.9	16.4	16.4	<0.1	Imperceptible
R38	11.9	27.3	11.9	18.7	18.8	+0.1	Imperceptible
R39	11.9	24.9	11.9	16.6	16.6	<0.1	Imperceptible
R40	11.9	26.8	11.9	18.4	18.4	<0.1	Imperceptible
R41	11.9	26.5	11.9	18.3	18.3	<0.1	Imperceptible
R42	11.9	26.8	11.9	18.4	18.4	<0.1	Imperceptible
R43	10.7	31.6	10.7	19.4	19.5	+0.1	Imperceptible
R44	10.7	31.4	10.7	19.1	19.1	<0.1	Imperceptible
R45	11.9	23.6	11.9	16.5	16.5	<0.1	Imperceptible
R46	11.9	24.8	11.9	17.1	17.1	<0.1	Imperceptible
R47*	11.9	27.3	11.9	18.9	19.0	N/A	N/A
R48	11.9	25.3	11.9	17.4	17.5	+0.1	Imperceptible
R49	11.9	25.2	11.9	16.7	16.7	<0.1	Imperceptible
R50	11.9	26.8	11.9	18.4	18.4	<0.1	Imperceptible
R51	11.9	27.4	11.9	18.8	18.8	<0.1	Imperceptible
R52	10.7	25.7	10.7	16.4	16.4	<0.1	Imperceptible
R53	10.7	24.5	10.7	15.9	15.9	<0.1	Imperceptible
R54	11.9	23.8	11.9	16.6	16.6	<0.1	Imperceptible
R55	11.9	23.9	11.9	16.8	16.8	<0.1	Imperceptible
R56	11.9	24.5	11.9	16.9	17.0	+0.1	Imperceptible
R57	11.9	25.3	11.9	17.5	17.6	+0.1	Imperceptible
R58	11.9	29.1	11.9	18.5	18.5	<0.1	Imperceptible
R59	10.6	24.6	10.6	16.9	16.7	-0.2	Imperceptible
R60	11.9	23.7	11.9	16.5	16.5	<0.1	Imperceptible
R61	11.9	25.8	11.9	17.8	17.8	<0.1	Imperceptible
R62	11.9	26.8	11.9	18.4	18.4	<0.1	Imperceptible
R63	11.9	30.1	11.9	19.0	19.0	<0.1	Imperceptible
R64	11.3	26.6	11.3	19.0	19.1	+0.1	Imperceptible
R65	11.9	26.4	11.9	17.3	17.3	<0.1	Imperceptible

Receptor ID	Background 2015 NO ₂	2015 base NO ₂	Background 2022 NO ₂	2022 DM NO ₂	2022 DS NO ₂	2022 NO ₂ change	2022 NO ₂ change criteria
R66	11.9	26.8	11.9	18.4	18.4	<0.1	Imperceptible
R67	11.9	25.6	11.9	16.9	16.9	<0.1	Imperceptible
R68	11.9	24.5	11.9	17.3	17.4	+0.1	Imperceptible
R69	11.9	36.2	11.9	25.2	25.3	+0.1	Imperceptible
R70	10.6	28.2	10.6	19.5	19.2	-0.3	Imperceptible
R71	10.6	30.0	10.6	19.5	20.0	+0.5	Small increase
R72	10.6	29.2	10.6	19.1	19.7	+0.6	Small increase
R73	10.6	29.4	10.6	18.9	19.3	+0.4	Small increase
R74	10.6	31.2	10.6	19.6	20.1	+0.5	Small increase
R75	10.6	31.9	10.6	22.6	21.3	-1.3	Small decrease
R76	10.6	31.0	10.6	21.9	20.9	-1.0	Small decrease
R77	10.6	26.1	10.6	18.4	17.8	-0.6	Small decrease
R78	10.6	23.1	10.6	16.3	15.9	-0.4	Imperceptible
R79*	10.6	17.3	10.6	12.2	12.8	N/A	N/A

*Selected for comparison with 1-hour mean NO₂ AQS objective, and/or 24-hour mean PM₁₀ AQS objective

Table 5.12: Estimated annual mean PM₁₀ concentrations (µg/m³) for human health receptors

Receptor ID	Background 2015 PM ₁₀	2015 base PM ₁₀	Background 2022 PM ₁₀	2022 DM PM ₁₀	2022 DS PM ₁₀	2022 PM ₁₀ change	2022 PM ₁₀ change criteria
R1	16.8	17.9	16.1	17.1	17.1	<0.1	Imperceptible
R2	16.8	18.3	16.1	17.5	17.5	<0.1	Imperceptible
R3	16.8	18.1	16.1	17.2	17.2	<0.1	Imperceptible
R4	16.8	17.9	16.1	17.1	17.1	<0.1	Imperceptible
R5	14.9	15.9	14.2	15.0	15.0	<0.1	Imperceptible
R6	16.9	18.9	16.3	17.9	18.0	+0.1	Imperceptible
R7	17.2	19.8	16.6	18.8	18.8	<0.1	Imperceptible
R8	16.8	18.1	16.1	17.3	17.3	<0.1	Imperceptible
R9	16.8	17.9	16.1	17.1	17.1	<0.1	Imperceptible

Receptor ID	Background 2015 PM ₁₀	2015 base PM ₁₀	Background 2022 PM ₁₀	2022 DM PM ₁₀	2022 DS PM ₁₀	2022 PM ₁₀ change	2022 PM ₁₀ change criteria
R10	16.8	18.3	16.1	17.3	17.3	<0.1	Imperceptible
R11	16.8	18.4	16.1	17.6	17.6	<0.1	Imperceptible
R12	16.8	18.4	16.1	17.6	17.6	<0.1	Imperceptible
R13	17.2	18.8	16.6	17.9	17.9	<0.1	Imperceptible
R14	16.8	17.9	16.1	17.1	17.1	<0.1	Imperceptible
R15	16.8	18.1	16.1	17.3	17.3	<0.1	Imperceptible
R16	17.2	18.5	16.6	17.7	17.7	<0.1	Imperceptible
R17	16.8	18.4	16.1	17.6	17.6	<0.1	Imperceptible
R18	14.9	16.9	14.2	16.1	16.2	+0.1	Imperceptible
R19	14.9	16.0	14.2	15.2	15.2	<0.1	Imperceptible
R20	16.8	18.0	16.1	17.3	17.3	<0.1	Imperceptible
R21	16.8	18.2	16.1	17.4	17.4	<0.1	Imperceptible
R22	16.8	17.9	16.1	17.1	17.1	<0.1	Imperceptible
R23	16.8	18.2	16.1	17.3	17.3	<0.1	Imperceptible
R24	16.8	17.8	16.1	17.0	17.0	<0.1	Imperceptible
R25	16.8	17.9	16.1	17.1	17.1	<0.1	Imperceptible
R26	16.8	18.0	16.1	17.1	17.1	<0.1	Imperceptible
R27	16.8	17.9	16.1	17.1	17.1	<0.1	Imperceptible
R28	16.8	18.4	16.1	17.6	17.6	<0.1	Imperceptible
R29	16.8	20.0	16.1	19.0	19.0	<0.1	Imperceptible
R30	16.8	17.9	16.1	17.1	17.1	<0.1	Imperceptible
R31	16.8	18.5	16.1	17.7	17.7	<0.1	Imperceptible
R32	16.8	17.7	16.1	17.0	17.0	<0.1	Imperceptible
R33	14.9	15.7	14.2	14.9	14.9	<0.1	Imperceptible
R34	16.9	19.4	16.3	18.3	18.3	<0.1	Imperceptible
R35	14.9	15.9	14.2	15.1	15.1	<0.1	Imperceptible
R36	14.9	15.8	14.2	15.0	15.0	<0.1	Imperceptible
R37	16.8	17.8	16.1	17.0	17.0	<0.1	Imperceptible
R38	16.8	18.5	16.1	17.7	17.7	<0.1	Imperceptible
R39	16.8	17.8	16.1	17.0	17.0	<0.1	Imperceptible
R40	16.8	18.4	16.1	17.6	17.6	<0.1	Imperceptible
R41	16.8	18.4	16.1	17.6	17.6	<0.1	Imperceptible
R42	16.8	18.4	16.1	17.6	17.6	<0.1	Imperceptible

Receptor ID	Background 2015 PM ₁₀	2015 base PM ₁₀	Background 2022 PM ₁₀	2022 DM PM ₁₀	2022 DS PM ₁₀	2022 PM ₁₀ change	2022 PM ₁₀ change criteria
R43	17.2	19.3	16.6	18.3	18.3	<0.1	Imperceptible
R44	17.2	19.2	16.6	18.3	18.3	<0.1	Imperceptible
R45	16.8	17.9	16.1	17.1	17.1	<0.1	Imperceptible
R46	16.8	18.1	16.1	17.3	17.3	<0.1	Imperceptible
R47*	16.8	18.3	16.1	17.5	17.5	N/A	N/A
R48	16.8	18.2	16.1	17.4	17.4	<0.1	Imperceptible
R49	16.8	17.9	16.1	17.0	17.0	<0.1	Imperceptible
R50	16.8	18.4	16.1	17.6	17.6	<0.1	Imperceptible
R51	16.8	18.5	16.1	17.7	17.7	<0.1	Imperceptible
R52	17.2	18.6	16.6	17.7	17.7	<0.1	Imperceptible
R53	17.2	18.4	16.6	17.6	17.6	<0.1	Imperceptible
R54	16.8	17.9	16.1	17.1	17.1	<0.1	Imperceptible
R55	16.8	17.9	16.1	17.1	17.1	<0.1	Imperceptible
R56	16.8	18.0	16.1	17.2	17.2	<0.1	Imperceptible
R57	16.8	18.2	16.1	17.4	17.4	<0.1	Imperceptible
R58	16.8	18.3	16.1	17.4	17.4	<0.1	Imperceptible
R59	16.9	18.4	16.3	17.6	17.6	<0.1	Imperceptible
R60	16.8	17.9	16.1	17.1	17.1	<0.1	Imperceptible
R61	16.8	18.2	16.1	17.4	17.4	<0.1	Imperceptible
R62	16.8	18.4	16.1	17.6	17.6	<0.1	Imperceptible
R63	16.8	18.4	16.1	17.5	17.5	<0.1	Imperceptible
R64	14.9	16.9	14.2	16.1	16.2	+0.1	Imperceptible
R65	16.8	18.0	16.1	17.2	17.2	<0.1	Imperceptible
R66	16.8	18.4	16.1	17.6	17.6	<0.1	Imperceptible
R67	16.8	17.9	16.1	17.1	17.1	<0.1	Imperceptible
R68	16.8	18.0	16.1	17.2	17.2	<0.1	Imperceptible
R69	16.8	19.7	16.1	18.7	18.7	<0.1	Imperceptible
R70	16.9	19.0	16.3	18.2	18.2	<0.1	Imperceptible
R71	16.9	18.9	16.3	18.0	18.2	+0.2	Imperceptible
R72	16.9	18.8	16.3	17.9	18.1	+0.2	Imperceptible
R73	16.9	18.8	16.3	17.9	18.0	+0.1	Imperceptible
R74	16.9	19.0	16.3	18.0	18.1	+0.1	Imperceptible
R75	16.9	19.9	16.3	19.2	18.9	-0.3	Imperceptible

Receptor ID	Background 2015 PM ₁₀	2015 base PM ₁₀	Background 2022 PM ₁₀	2022 DM PM ₁₀	2022 DS PM ₁₀	2022 PM ₁₀ change	2022 PM ₁₀ change criteria
R76	16.9	19.8	16.3	19.0	18.8	-0.2	Imperceptible
R77	16.9	18.9	16.3	18.1	18.0	-0.1	Imperceptible
R78	16.9	18.3	16.3	17.6	17.5	-0.1	Imperceptible
R79*	16.9	17.3	16.3	16.6	16.7	N/A	N/A
*Selected for comparison with 1-hour mean NO ₂ AQS objective, and/or 24-hour mean PM ₁₀ AQS objective							

Table 5.13: Estimated number of 24hr mean PM₁₀ exceedances for human health receptors

Receptor ID	Number of 24hr mean PM ₁₀ exceedances 2015	Number of 24hr mean PM ₁₀ exceedances 2022 DM	Number of 24hr mean PM ₁₀ exceedances 2022 DS	2022 number of exceedances PM ₁₀ change
R1	1	1	1	<1
R2	2	1	1	<1
R3	1	1	1	<1
R4	1	1	1	<1
R5	0	0	0	<1
R6	2	1	1	<1
R7	3	2	2	<1
R8	1	1	1	<1
R9	1	1	1	<1
R10	2	1	1	<1
R11	2	1	1	<1
R12	2	1	1	<1
R13	2	1	1	<1
R14	1	1	1	<1
R15	1	1	1	<1
R16	2	1	1	<1
R17	2	1	1	<1
R18	1	0	0	<1
R19	0	0	0	<1
R20	1	1	1	<1
R21	2	1	1	<1

Receptor ID	Number of 24hr mean PM ₁₀ exceedances 2015	Number of 24hr mean PM ₁₀ exceedances 2022 DM	Number of 24hr mean PM ₁₀ exceedances 2022 DS	2022 number of exceedances PM ₁₀ change
R22	1	1	1	<1
R23	2	1	1	<1
R24	1	1	1	<1
R25	1	1	1	<1
R26	1	1	1	<1
R27	1	1	1	<1
R28	2	1	1	<1
R29	3	2	2	<1
R30	1	1	1	<1
R31	2	1	1	<1
R32	1	1	1	<1
R33	0	0	0	<1
R34	3	2	2	<1
R35	0	0	0	<1
R36	0	0	0	<1
R37	1	1	1	<1
R38	2	1	1	<1
R39	1	1	1	<1
R40	2	1	1	<1
R41	2	1	1	<1
R42	2	1	1	<1
R43	3	2	2	<1
R44	3	2	2	<1
R45	1	1	1	<1
R46	1	1	1	<1
R47*	2	1	1	<1
R48	2	1	1	<1
R49	1	1	1	<1
R50	2	1	1	<1
R51	2	1	1	<1
R52	2	1	1	<1

Receptor ID	Number of 24hr mean PM ₁₀ exceedances 2015	Number of 24hr mean PM ₁₀ exceedances 2022 DM	Number of 24hr mean PM ₁₀ exceedances 2022 DS	2022 number of exceedances PM ₁₀ change
R53	2	1	1	<1
R54	1	1	1	<1
R55	1	1	1	<1
R56	1	1	1	<1
R57	2	1	1	<1
R58	2	1	1	<1
R59	2	1	1	<1
R60	1	1	1	<1
R61	2	1	1	<1
R62	2	1	1	<1
R63	2	1	1	<1
R64	1	0	0	<1
R65	1	1	1	<1
R66	2	1	1	<1
R67	1	1	1	<1
R68	1	1	1	<1
R69	3	2	2	<1
R70	2	2	2	<1
R71	2	1	2	<1
R72	2	1	1	<1
R73	2	1	1	<1
R74	2	1	1	<1
R75	3	2	2	<1
R76	3	2	2	<1
R77	2	1	1	<1
R78	2	1	1	<1
R79*	1	1	1	<1
*Selected for comparison with 1-hour mean NO ₂ AQS objective, and/or 24-hour mean PM ₁₀ AQS objective				

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