



YOUR LONDON AIRPORT
Gatwick

Our northern runway: making best use of Gatwick

Preliminary Environmental Information Report
Appendix 13.6.1: Air Quality Data and Model Verification
September 2021

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1 Introduction

1.1.1 This document forms Appendix 13.6.1 of the Preliminary Environmental Information Report (PEIR) prepared on behalf of Gatwick Airport Limited (GAL). The PEIR presents the preliminary findings of the Environmental Impact Assessment (EIA) process for the proposal to make best use of Gatwick Airport's existing runways (referred to within this report as 'the Project'). The Project proposes alterations to the existing northern runway which, together with the lifting of the current restrictions on its use, would enable dual runway operations. The Project includes the development of a range of infrastructure and facilities which, with the alterations to the northern runway, would enable the airport passenger and aircraft operations to increase. Further details regarding the components of the Project can be found in the Chapter 5: Project Description.

2 Baseline Environment

2.1 Monitoring Data within 11 km by 10 km Domain

Table 2.1.1: Continuous nitrogen dioxide (NO₂) Monitoring Data for 2015-2019

LA ID	X	Y	Location type	Annual Mean NO ₂ (µg/m ³)				
				2015	2016	2017	2018	2019
CA2	529417	141496	Industrial	22.0	29.0	28.0	25.0	25.0
LGW3	528583	140825	Industrial	28.0	30.0	29.0	30.0	29.0
RG1	528208	142337	Urban background	21.1	20.3	20.4	18.8	19.1
RG2	528553	141857	Urban background	26.4	28.7	No data	No data	No data
RG3	526421	139639	Rural	14.0	16.7	13.9	15.5	15.1
RG6	528597	141833	Urban background	No data	28.3*	26.7	24.9	24.2

No data: Monitoring site not operational for year of monitoring.

* Low data capture (less than 75%).

Table 2.1.2: Diffusion Tube NO₂ Monitoring Data for 2015-2019 (see Figure 2.1.1 for locations)

ID	X	Y	Location type	Annual Mean NO ₂ (µg/m ³)				
				2015	2016	2017	2018	2019
Arup								
RG1	528204	142330	Urban background	NA	22.8	20.9	20.2	20.5
RG2/RG6	528597	141833	Urban background	NA	29.8	26.4	25.2	26.1
RG3	526444	139625	Urban background	NA	14.4	13.3	14.9	13.4
BR1	527881	142766	Roadside	NA	33.0	35.5	30.4	30.1
BR2	527799	142759	Kerbside	NA	41.5	40.4	36.9	34.1
BR3	527797	142798	Roadside	NA	46.1	49.6	41.5	38.1
BR4	527787	142758	Kerbside	NA	46.6	44.6	41.5	37.7
BR5	527778	142766	Kerbside	NA	51.2	53.4	46.0	42.0
BR6	527752	142748	Roadside	NA	41.6	42.9	38.0	36.5

ID	X	Y	Location type	Annual Mean NO ₂ (µg/m ³)				
				2015	2016	2017	2018	2019
BR7	527724	142715	Roadside	NA	45.2	42.8	39.1	37.0
BR8	527697	142684	Roadside	NA	40.1	40.1	36.9	33.8
BR9	527672	142657	Roadside	NA	45.3	41.8	41.6	38.5
BR10	527629	142607	Kerbside	NA	41.1	38.8	38.6	33.8
BR11	527570	142563	Roadside	NA	36.4	34.6	34.7	33.2
BR12	527583	142549	Roadside	NA	44.7	41.5	39.2	35.6
BR13	527636	142599	Roadside	NA	43.9	41.6	40.0	38.1
BR14	527657	142614	Roadside	NA	38.9	36.8	35.6	32.8
BR15	527690	142641	Roadside	NA	29.7	29.9	30.2	29.3
BR16	527685	142646	Roadside	NA	35.7	35.8	33.6	32.4
BR17	527708	142675	Roadside	NA	47.7	47.9	47.1	45.4
BR18	527719	142684	Roadside	NA	44.6	41.0	41.2	41.2
BR19	527736	142705	Roadside	NA	52.5	49.4	49.0	47.8
BR20	527764	142735	Roadside	NA	52.0	50.9	45.1	42.4
HR1	528073	137821	Roadside	NA	28.2	32.5	28.8	30.7
HR2	528113	137821	Roadside	NA	30.8	28.2	30.2	30.4
HR3	528147	137821	Roadside	NA	34.5	32.4	31.4	33.8
HR4	528153	137871	Roadside	NA	40.7	40.3	36.7	38.9
HR5	528153	137912	Roadside	NA	52.6	51.0	45.7	48.6
HR6	528068	137806	Roadside	NA	24.9	23.9	23.0	24.3
HR7	528151	137808	Roadside	NA	34.2	31.9	34.2	33.8
HR8	528173	137838	Roadside	NA	42.6	44.8	41.4	38.1
HR9	528193	137805	Urban background	NA	25.4	26.4	23.7	29.4
HR10	528211	137807	Urban background	NA	23.9	23.6	21.9	22.5
HR11	528249	137794	Roadside	NA	24.5	24.5	22.5	21.3
HR12	528261	137810	Roadside	NA	29.3	28.8	28.1	26.7
HR13	528255	137818	Kerbside	NA	25.9	26.7	25.9	26.3
HR14	528369	137779	Urban background	NA	22.7	22.7	21.0	20.1
HR15	528288	137829	Roadside	NA	40.3	35.3	32.5	32.0
HR16	528276	137861	Roadside	NA	33.3	34.4	30.3	32.1
HR17	528308	138013	Urban background	NA	35.9	38.1	36.3	35.8
HR18	528240	138015	Roadside	NA	43.3	44.2	42.0	41.0
HR19	528316	138050	Urban background	NA	28.6	28.9	27.3	28.4
HR20	528276	137854	Roadside	NA	41.5	39.4	37.3	36.5
Crawley Borough Council								
CR1	526798	136787	Roadside	30.0	40.0	33.0	33.0	35.0
CR3	528438	138392	Urban background	20.0	24.0	22.0	20.0	21.0
CR4	529864	138204	Urban background	21.0	25.0	23.0	21.0	23.0

ID	X	Y	Location type	Annual Mean NO ₂ (µg/m ³)				
				2015	2016	2017	2018	2019
CR48	527113	139522	Urban background	24.0	28.0	27.0	25.0	25.0
CR49	526320	139860	Urban background	16.0	19.0	18.0	18.0	17.0
CR50	527810	139929	Urban background	19.0	25.0	21.0	21.0	21.0
CR51	529496	141464	Urban background	21.0	25.0	24.0	22.0	22.0
CR52, CR53, CR54	529417	141496	Industrial	24.7	29.3	29.3	24.7	25.3
CR 55	528446	138085	Roadside	39.0	42.0	41.0	41.0	42.0
CR 60	526740	136935	Roadside	31.0	38.0	35.0	33.0	32.0
CR62	528438	138088	Urban background	31.0	40.0	40.0	38.0	40.0
CR63	528153	137912	Roadside	44.0	53.0	52.0	52.0	49.0
CR64	528150	137825	Roadside	37.0	41.0	41.0	40.0	38.0
CR66	526763	136949	Roadside	27.0	35.0	34.0	29.0	30.0
CR69	528443	138082	Urban background	36.0	43.0	42.0	40.0	44.0
CR72	525530	138472	Urban background	13.0	16.0	15.0	15.0	13.0
CR74	528978	139599	Urban background	26.0	37.0	37.0	34.0	33.0
CR75	529335	139589	Urban background	20.0	25.0	23.0	21.0	23.0
CR76	528291	137814	Roadside	36.0	43.0	40.0	35.0	35.0
CR77	528362	137812	Roadside	36.0	42.0	39.0	35.0	35.0
CR78	530037	138553	Urban background	NA	29.0	26.0	24.0	22.0
CR79	529312	138534	Urban background	NA	30.0	27.0	25.0	25.0
CR80	530424	136521	Urban background	NA	32.0	27.0	28.0	27.0
CR85	528286	138019	Urban background	NA	NA	27.0	30.0	30.0
CR86	526876	136819	Roadside	NA	NA	22.0	26.0	27.0
CR87	526908	136754	Roadside	NA	NA	38.0	38.0	39.0
CR88	525489	136573	Urban background	NA	NA	18.0	26.0	25.0
CR89	527719	137894	Urban background	NA	NA	19.0	22.0	22.0
CR90	526953	138658	Roadside	NA	NA	25.0	26.0	NA
CR91	528683	137174	Roadside	NA	NA	39.0	34.0	32.0
CR93	528895	137116	Roadside	NA	NA	65.0	48.0	53.0
CR94	528842	137071	Roadside	NA	NA	NA	26.0	27.0
CR95	528882	137086	Roadside	NA	NA	NA	31.0	32.0
CR96	529125	137196	Roadside	NA	NA	NA	30.0	27.0
CR97	528604	136952	Roadside	NA	NA	NA	41.0	37.0
CR98	528515	139281	Roadside	NA	NA	NA	35.0	34.0
CR100	526326	136487	Roadside	NA	NA	NA	30.0	27.0
CR103	528848	137802	Urban background	NA	NA	NA	NA	21.0
CR105	526940	137831	Roadside	NA	NA	NA	NA	44.0
CR106	527000	138357	Roadside	NA	NA	NA	NA	46.0

ID	X	Y	Location type	Annual Mean NO ₂ (µg/m ³)				
				2015	2016	2017	2018	2019
Mid Sussex District Council								
MSAQ7	530440	137280	Kerbside	25.3	26.5	23.6	22.5	NA
MSAQ25	531176	138829	Kerbside	29.1	30.0	28.8	26.9	26.8
Mole Valley District Council								
MV9	526913	142369	Urban background	14.4	15.5	10.9	10.3	11.0
MV8	523412	140582	Urban background	9.4	15.4	18.1	14.6	15.7
Reigate and Banstead Borough Council								
RB11	528104	142226	Urban background	22.0	24.2	22.8	23.9	21.3
RB12	528425	142935	Rural	23.2	26.8	28.3	25.3	25.8
RB13	528362	142983	Rural	20.0	22.9	19.9	23.1	19.8
RB24, RB25, RB26	528208	142337	Urban background	21.0	21.3	21.3	21.0	21.6
RB51	527873	142606	Urban background	20.6	21.7	20.8	20.8	20.7
RB52	527892	142463	Urban background	36.0	24.7	24.7	25.0	24.6
RB53	528030	142373	Urban background	26.7	23.8	25.3	24.4	25.6
RB54	528112	142321	Urban background	22.9	22.7	23.4	24.5	22.9
RB55	528254	142196	Urban background	23.6	24.7	22.8	24.8	23.6
RB56	528386	142080	Urban background	22.0	24.5	24.0	22.2	24.7
RB57	528499	141953	Urban background	23.4	25.0	26.2	24.2	24.6
RB58	528538	141897	Urban background	24.4	26.0	26.8	24.7	25.9
RB59	528602	141789	Urban background	25.0	28.6	27.8	26.5	26.0
RB60	528607	141910	Urban background	26.4	27.2	27.3	24.9	26.1
RB61	528578	142006	Urban background	21.3	24.8	22.6	21.3	23.1
RB64	528608	142439	Urban background	22.8	23.6	22.1	21.6	23.1
RB65	528596	142641	Urban background	24.3	24.6	22.4	22.8	23.1
RB66	528499	142512	Urban background	20.8	22.7	21.8	22.5	21.6
RB68	528505	142246	Urban background	21.0	25.9	24.0	21.7	24.0
RB69	528347	142229	Urban background	23.0	24.3	26.5	24.7	25.2
RB70	528343	142373	Urban background	22.6	23.8	24.3	23.3	23.7
RB72	528238	142587	Urban background	22.4	25.4	22.2	25.1	23.6
RB73	528192	142673	Urban background	20.8	24.0	22.0	22.0	21.5
RB74	529149	141953	Urban background	20.6	24.7	22.5	22.3	21.2
RB75	529203	142192	Urban background	21.6	23.6	23.9	21.9	22.3
RB76	528981	142444	Urban background	19.6	20.6	20.1	19.6	19.9
RB77	528789	142570	Urban background	19.2	21.0	20.9	19.8	19.7
RB78, RB79, RB80	528553	141857	Urban background	25.6	27.3	30.6	29.8	28.3
RB98	527931	142231	Urban background	24.0	25.1	25.8	24.7	24.2

ID	X	Y	Location type	Annual Mean NO ₂ (µg/m ³)				
				2015	2016	2017	2018	2019
RB99 2, RB100 2, RB101 2	526421	139639	Rural	13.6	16.4	13.9	15.4	14.2
RB102 2	530936	144278	Rural	22.0	22.4	20.9	23.4	19.3
RB149	527733	142707	Rural	45.0	49.8	46.0	43.4	43.5
RB151	528502	142952	Rural	31.2	31.7	33.3	29.4	33.5
RB174	527852	142841	Rural	NA	30.4	31.1	30.3	29.1
RB175	527955	142999	Rural	NA	26.7	30.6	27.5	29.8
RB176	527765	142777	Rural	NA	23.1	25.4	25.5	25.4
RB177	527750	142761	Rural	NA	23.9	24.9	23.8	25.1
RB178, RB179, RB180	528618	141781	Urban background	NA	NA	25.6	23.3	23.4
Tandridge District Council								
TD19	531134	143585	Urban background	21.0	20.4	20.9	19.2	20.7
TD26	531105	142939	Urban background	25.0	21.5	23.4	21.1	19.3
TD27	530753	150553	Kerbside	33.0	32.1	28.7	30.2	27.9

NA: Data not available for the monitoring site

2.2 Ecological Data

Table 2.2.1: Ecological Baseline Data Used in the Assessment

Receptor	Sensitive habitats	2029 NO _x background concentration (µg/m ³)	2032 NO _x background concentration (µg/m ³)	APIS data of minimum N deposition rate (kg N/ha/yr)	Critical load (kg N/ha/yr)
Ashdown Forest SAC/SPA	Heathland	NA	7.7 to 8.5	22.7	10
Mole Gap to Reigate Escarpment SAC	Grassland	NA	8.3 to 10.1	25.0	15
Thames Basin Heaths SPA	Heathland	NA	8.8 to 10.0	21.6	10
Thursley, Ash, Pirbright & Chobham SAC	Heathland	NA	8.6 to 9.8	21.6	10
Glover's Wood SSSI	Broad-leaved, mixed and yew woodland.	NA	8.2 to 8.4	25.7	15
Huntsgreen Wood AW	Broadleaved deciduous woodland	8.6	NA	29.8	10

Data taken from Air Pollution Information System (APIS) (Centre for Ecology and Hydrology, 2021)

NA: data not used in this assessment

3 Model Verification

3.1 Overview

3.1.1 Model verification refers to the comparison of modelled pollutant concentrations with measured concentrations at the same points to assess the performance of the model and determine an adjustment factor if one is required. Defra's Technical Guidance (TG16) (Defra, 2021) provides advice on model verification, which is used for modelling of road networks in isolation highways assessments, local air quality management and other local modelling of roads (Defra, 2021). Should the model results for NO₂ be largely within ±25 per cent of the measured values and there is no systematic over or under-prediction of concentrations, then the Defra guidance (TG16) (Defra, 2021) advises that no adjustment is necessary. If this is not the case, then the modelled values are adjusted based on the observed relationship between modelled and measured NO_x concentrations to provide better agreement.

3.1.2 Modelled results may not compare as well at some locations for a number of reasons including:

- uncertainties in estimated traffic flow and speed data;
- model set up (including street canyons, road widths, receptor locations);
- model limitations (treatment of roughness and meteorological data);
- uncertainty in monitoring data (notably diffusion tubes, eg bias adjustment factors and annualisation of short-term data); and
- uncertainty in emissions/emission factors.

3.1.3 The above factors were investigated as part of the model verification process to minimise the uncertainties as far as practicable.

3.2 Model Verification

3.2.1 Some monitoring locations are not suitable for model verification purposes as there may be specific local influences unaccounted for in the input data or model, or they may be located too close to the road, in which case Defra's guidance (TG16) (Defra, 2021) advises they should not be used. All NO₂ monitoring location sites (444 in total) within 400 metres of the modelled road network, within the traffic reliability area (TRA) and with monitoring data for baseline year 2018 were investigated. Each site was examined

for its suitability for inclusion in the verification study. The criteria used to exclude monitoring data from the verification process are outlined below.

- Monitoring site located away from modelled sources or on a road island, where concentrations cannot be accurately represented in the model.
- Kerbside location, ie too close to the road to be accurately represented by the model.
- Monitoring site whose exact location could not be accurately identified.
- Monitoring site obstructed by fence and/or vegetation and therefore concentrations would not be accurately represented in the model.
- Monitoring site influenced by other emission sources which were not explicitly modelled.
- Monitoring site with low data capture for 2018, ie less than 75 per cent in a year.
- Monitoring site set back from road therefore not roadside;
- Monitoring site has height difference with road, not represented accurately in the model.
- Passive monitoring site co-located with continuous monitor. Continuous monitoring results used in verification instead.

3.2.2 From the monitoring data in the study area for 2018, the baseline year for the study, 255 sites were selected for inclusion in the model verification exercise (See Figure 2.1.1 for locations). The justification for the exclusion for each of the other monitoring sites is provided in Table 3.2.1.

Table 3.2.1: Justification for Exclusion of Monitoring Site

Model ID	Site ID	Justification for Exclusion
M1	MSAQ9	Away from modelled sources
M2	MSAQ20	Away from modelled sources
M3	MV9	Away from modelled sources
M4	Cran 2	Away from modelled sources
M5	MV5	Low data capture for 2018
M6	Horsham 4	Away from modelled sources
M7	MV4	Away from modelled sources
M8	Horsham 3	Away from modelled sources
M9	Dun 2	Away from modelled sources
M10	W9	Away from modelled sources
M12	MV3	Away from modelled sources
M13	Cowfold 8n	Away from modelled sources
M14	W1	Away from modelled sources
M15	MV8	Away from modelled sources
M16	CY50	Away from modelled sources
M17	EE3	Away from modelled sources
M18	RG3	Away from modelled sources
M19	MV7	Away from modelled sources
M20	W3	Away from modelled sources
M21	CR72	Away from modelled sources
M22	RB99 2	Away from modelled sources
M23	RB101 2	Away from modelled sources
M26	MV14	Away from modelled sources
M27	RB100 2	Away from modelled sources
M29	RB23	Away from modelled sources
M30	RB17	Away from modelled sources
M31	RB31	Away from modelled sources
M32	RB9	Away from modelled sources
M34	CR 99	Away from modelled sources
M35	RB147	Away from modelled sources
M37	RB3	Away from modelled sources
M38	TD9	Away from modelled sources
M42	RG1	Away from modelled sources
M44	RB8	Away from modelled sources
M47	TD19	Away from modelled sources
M49	RB76	Away from modelled sources
M52	RB22	Away from modelled sources
M53	TD25	Away from modelled sources
M54	TD34	Away from modelled sources

Model ID	Site ID	Justification for Exclusion
M55	RB24	Away from modelled sources
M56	RB77	Away from modelled sources
M58	CR3	Away from modelled sources
M61	RG1	Away from modelled sources
M62	Downside 3	Away from modelled sources
M63	RB33	Away from modelled sources
M64	Pulborough 2	Away from modelled sources
M65	RB51	Away from modelled sources
M67	CR4	Away from modelled sources
M68	CR50	Away from modelled sources
M70	HR14	Away from modelled sources
M71	TD26	Away from modelled sources
M72	Steyning 4N	Away from modelled sources
M73	RB61	Away from modelled sources
M74	RB29	Away from modelled sources
M75	RB25	Away from modelled sources
M76	RB26	Away from modelled sources
M77	RB64	Kerbside location
M78	RB68	Away from modelled sources
M81	ST42	Away from modelled sources
M82	RB18	Away from modelled sources
M83	RB75	Away from modelled sources
M84	HR10	Away from modelled sources
M87	RB30	Tube not represented accurately in the model
M88	RB37	Away from modelled sources
M91	RB39	Height difference with road, not represented accurately in the model.
M92	RB56	Away from modelled sources
M93	CY47	Away from modelled sources
M95	MV11	Low data capture for 2018
M96	RB74	Away from modelled sources
M99	RB66	Away from modelled sources
M102	MV12	Away from modelled sources
M103	RB65	Kerbside location
M104	TD30	Away from modelled sources
M106	TD32	Away from modelled sources
M107	HR6	Low data capture for 2018
M110	RB178	Away from modelled sources
M111	35	Kerbside location
M112	EE42	Low data capture for 2018
M113	RB13	Away from modelled sources

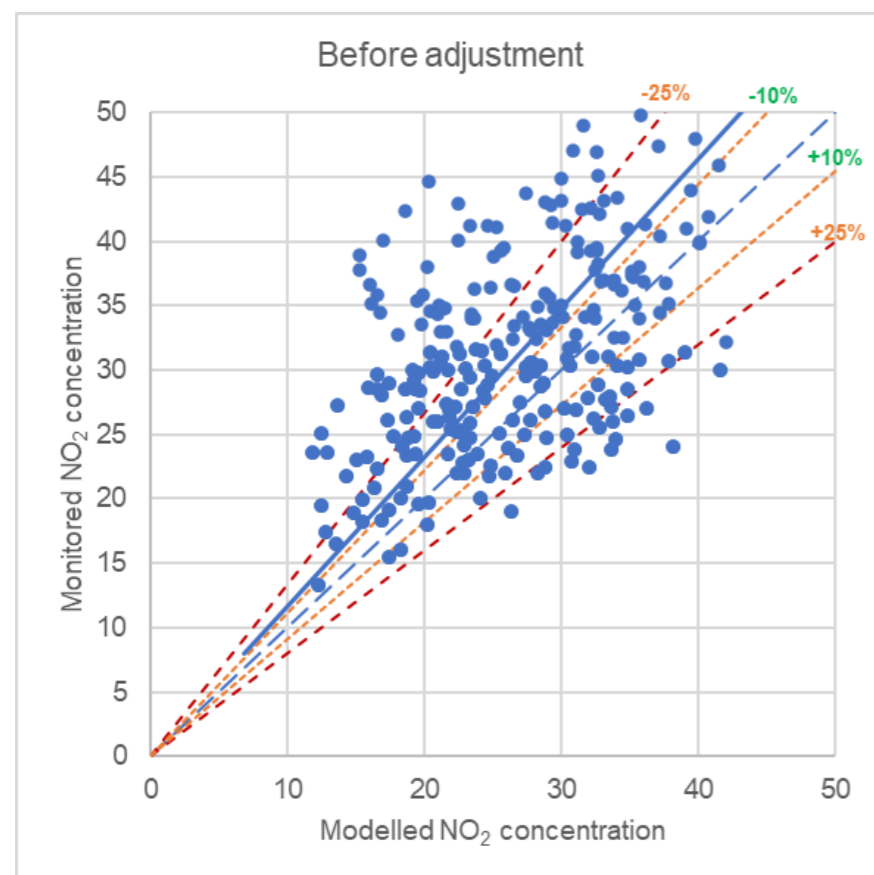
Model ID	Site ID	Justification for Exclusion
M114	RB19	Away from modelled sources
M116	EE38	Low data capture for 2018
M117	MSAQ2	Away from modelled sources
M118	RB70	Kerbside location
M121	RB179	Away from modelled sources
M122	RB180	Away from modelled sources
M123	EE9	Low data capture for 2018
M129	HR9	Away from modelled sources
M130	MV6	Away from modelled sources
M131	RB36	Away from modelled sources
M135	RB11	Away from modelled sources
M136	CR52	Away from modelled sources
M137	CR78	Away from modelled sources
M139	Storrington 16n	Away from modelled sources
M141	ST07	Kerbside location
M142	RB57	Away from modelled sources
M144	ST10	Away from modelled sources
M145	Park Way	Co-located with continuous monitor. Continuous monitoring results used in verification instead.
M146	RB53	Away from modelled sources
M147	RB54	Away from modelled sources
M149	Dun 1	Away from modelled sources
M151	RB27	Height difference with road, not represented accurately in the model.
M153	RB58	Away from modelled sources
M154	RB69	Kerbside location
M155	RB98	Away from modelled sources
M158	RB55	Away from modelled sources
M159	RG6	Away from modelled sources
M160	RB60	Away from modelled sources
M162	CA2	Away from modelled sources
M164	CR53	Away from modelled sources
M165	CR54	Away from modelled sources
M167	RB52	Away from modelled sources
M168	TD36	Away from modelled sources
M172	TD39	Away from modelled sources
M174	Henfield 2n	Away from modelled sources
M175	RG2/RG6	Away from modelled sources
M178	EE16	Low data capture for 2018
M179	RB78	Away from modelled sources
M182	HR13	Tube not represented accurately in the model
M185	CR90	Away from modelled sources

Model ID	Site ID	Justification for Exclusion
M187	EE43	Away from modelled sources
M194	RB34	Away from modelled sources
M195	TD33	Away from modelled sources
M196	ST11	Away from modelled sources
M197	RB59	Away from modelled sources
M199	Cowfold AU A/B/C	Co-located with continuous monitor. Continuous monitoring results used in verification instead.
M200	Storrington 8/9/10 AURN	Co-located with continuous monitor. Continuous monitoring results used in verification instead.
M202	EE37	Low data capture for 2018
M205	CY56a	Away from modelled sources
M206	Cobham 6	Away from modelled sources
M207	Billingshurst 1	Away from modelled sources
M208	MSAQ22	Away from modelled sources
M215	HR19	Away from modelled sources
M224	HR12	Kerbside location
M229	MV10	Height difference with road, not represented accurately in the model.
M233	ST08	Away from modelled sources
M235	MSAQ17	Tube not represented accurately in the model
M239	CR66	Kerbside location
M243	H2	Away from modelled sources
M245	CY46	Low data capture for 2018
M253	CR85	Height difference with road, not represented accurately in the model.
M255	CR100	Low data capture for 2018
M257	ST8	Away from modelled sources
M261	HR2	Kerbside location
M266	RB182	Site influenced by other emission sources
M267	BR1	Kerbside location
M278	Horsham 1	Co-located with continuous monitor. Continuous monitoring results used in verification instead.
M281	HR3	Tube not represented accurately in the model
M283	RB80	Away from modelled sources
M291	ST21	Away from modelled sources
M293	H1	Kerbside location
M294	H3	Away from modelled sources
M297	RB79	Away from modelled sources
M299	DT84	Kerbside location
M302	RB118	Away from modelled sources
M304	Storrington 3	Tube not represented accurately in the model
M312	MSAQ12	Tube not represented accurately in the model
M317	MSAQ14	Kerbside location
M323	Pulborough 1	Tube not represented accurately in the model
M325	HR7	Kerbside location

Model ID	Site ID	Justification for Exclusion
M332	BR11	Tube not represented accurately in the model
M333	EE10	Kerbside location
M339	CR98	Kerbside location
M341	ST23	Kerbside location
M342	EE22	Kerbside location
M345	CY97c	Co-located with continuous monitor. Continuous monitoring results used in verification instead.
M351	EE50	Tube not represented accurately in the model
M354	HR17	Height difference with road, not represented accurately in the model.
M360	HR4	Tube not represented accurately in the model
M363	BR8	Tube not represented accurately in the model
M366	CR102	Low data capture for 2018
M369	CY42	Kerbside location
M376	BR6	Kerbside location
M378	BR10	Tube not represented accurately in the model
M381	BR7	Kerbside location
M383	RB219	Site influenced by other emission sources
M384	BR12	Tube not represented accurately in the model
M391	CY43	Away from modelled sources
M393	CR64	Tube not represented accurately in the model
M399	CR97	Tube not represented accurately in the model
M400	CR9	Kerbside location
M408	BR4	Kerbside location
M409	BR3	Tube not represented accurately in the model
M410	BR9	Tube not represented accurately in the model
M427	HR5	Kerbside location
M429	BR5	Tube not represented accurately in the model
M436	Storrington 19n	Kerbside location
M438	CR63	Kerbside location
M441	CR101	Low data capture for 2018
M443	RB148	Kerbside location

3.2.3 Diagram 3.2.1 shows the comparison of the model's performance in the study area prior to any adjustment.

Diagram 3.2.1: Model Performance Before Adjustment



3.2.4 It can be observed that there is tendency for the model to underestimate NO₂ concentrations and therefore an adjustment to the modelled concentrations was necessary.

3.2.5 A generic verification factor of 1.3 was derived for the study area. A further 14 zone specific factors were derived where the modelling performance was significantly different and required area specific adjustment taking into account local regions within the study area. A further 8 zones were derived where no adjustment was required for the modelled concentrations. The zones with their corresponding factors that have been applied to the road contribution of the modelled concentrations in the study area are presented in Table 3.2.2. Diagram 3.2.2 shows the comparison of the model's performance in the study after applying the adjustment factors.

Table 3.2.2: 22 Zonal Adjustment Factors

Zone	Modelled Road Adjustment Factor
A25 (Oxted, Westerham, Brasted, Sundridge)	1.5
Around the airport	1.0
Cowfold	2.5
Crawley	2.5
Crawley Three Bridges (south)	1.0
Croydon	1.5
Dorking	1.6
Dunton Green	2.6
Ewell	1.0
Hassocks	2.7
Hazelwick roundabout	1.0
Hooley	1.0
Horley (A23 Brighton Road)	1.4
Horley (A23 Brighton Road) (west)	1.0
Horsham	1.7
M25	1.0
Merstham	1.0
Morden (A24)	1.5
Nutfield	1.7
Reigate	1.9
Storrington	2.5
Warlingham	1.7

Diagram 3.2.2: Model Performance After Adjustment

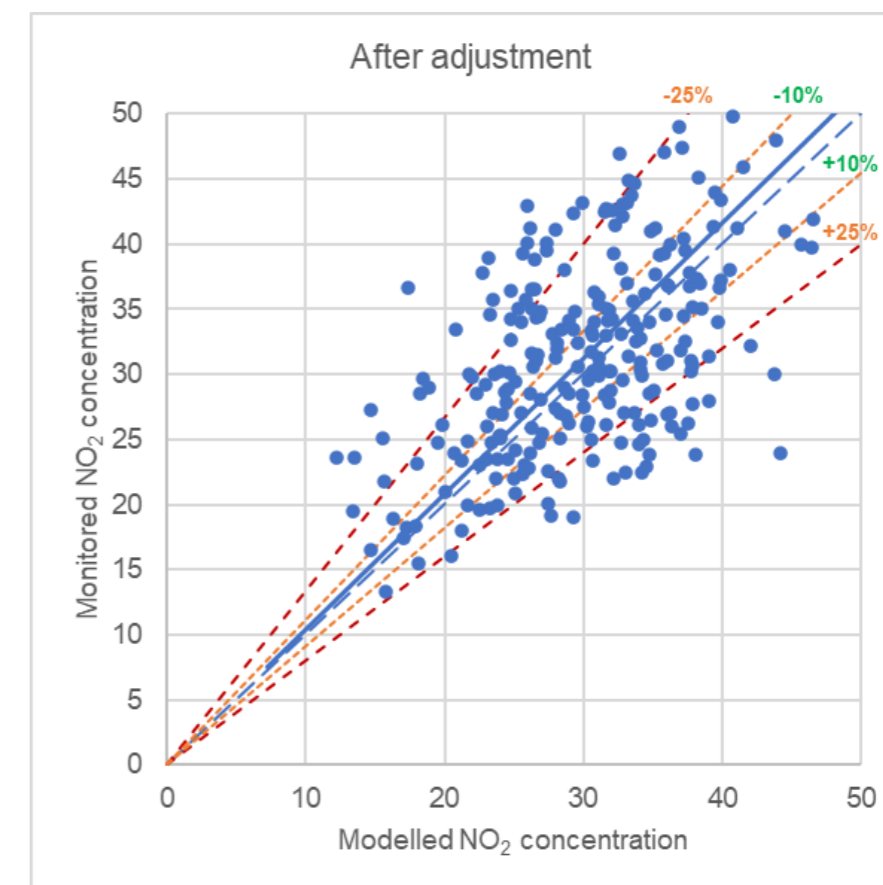


Table 3.2.3: Comparison of Modelled and 2018 Monitored NO₂ Concentrations before and after Adjustment

LA ID	Type	Monitoring Authority	2018 Monitored NO ₂ (µg/m ³)	Non-adjusted Modelled NO ₂ (µg/m ³)	Difference ¹ before adjustment	Adjusted Modelled NO ₂ (µg/m ³)	Difference ¹ post-adjustment
A25 (Oxted, Westerham, Brasted, Sundridge)							
DT25	DT	Sevenoaks	26.1	26.5	1%	31.6	21%
DT34	DT	Sevenoaks	26.1	27.7	6%	34.0	30%
DT71	DT	Sevenoaks	31.3	25.6	-18%	31.1	-1%
DT24	DT	Sevenoaks	35.8	19.9	-44%	23.5	-34%
DT36	DT	Sevenoaks	40.1	22.5	-44%	26.0	-35%
DT85	DT	Sevenoaks	43.7	27.4	-37%	33.5	-23%
TD28	DT	Tandridge	29.8	19.6	-34%	22.0	-26%
Cowfold							
HO5	CM	Horsham	28.4	19.6	-31%	31.5	11%
Cowfold 6n	DT	Horsham	25.1	12.5	-50%	15.6	-38%
Cowfold 4	DT	Horsham	31.4	20.5	-35%	33.2	6%
Cowfold 3	DT	Horsham	31.8	22.3	-30%	36.9	16%
Cowfold 1, 2	DT	Horsham	35.4	19.4	-45%	31.0	-12%
Cowfold 7n	DT	Horsham	42.4	18.6	-56%	29.3	-31%
Crawley							
CR86	DT	Crawley	26.0	21.0	-19%	30.2	16%
CR1	DT	Crawley	33.0	21.2	-36%	30.6	-7%
CR 60	DT	Crawley	33.0	21.6	-34%	31.6	-4%
CR87	DT	Crawley	38.0	20.2	-47%	28.6	-25%
Croydon							
CR7	CM	Croydon	31.0	32.3	4%	37.7	22%
CY52	DT	Croydon	37.8	32.4	-14%	37.7	0%
CY48	DT	Croydon	39.5	32.6	-17%	37.3	-6%
CY51	DT	Croydon	42.9	22.5	-48%	25.9	-40%
CY59	DT	Croydon	49.8	35.8	-28%	40.8	-18%
CY98b	DT	Croydon	50.8	38.3	-25%	44.2	-13%
CY58	DT	Croydon	67.8	37.3	-45%	42.8	-37%
Dorking							
MV2	DT	Mole Valley	18.2	15.5	-15%	17.3	-5%
MV1	DT	Mole Valley	23.4	18.7	-20%	21.2	-9%
MV13	DT	Mole Valley	28.5	19.4	-32%	22.3	-22%

LA ID	Type	Monitoring Authority	2018 Monitored NO ₂ (µg/m ³)	Non-adjusted Modelled NO ₂ (µg/m ³)	Difference ¹ before adjustment	Adjusted Modelled NO ₂ (µg/m ³)	Difference ¹ post-adjustment
Dunton Green							
DT43	DT	Sevenoaks	28.5	18.6	-35%	26.1	-8%
DT54	DT	Sevenoaks	32.7	18.0	-45%	24.8	-24%
Ewell							
EE47	DT	Epsom and Ewell	23.5	23.9	2%	23.9	2%
EE45	DT	Epsom and Ewell	23.9	26.1	9%	26.1	9%
EE48	DT	Epsom and Ewell	27.8	24.4	-12%	24.4	-12%
EE17	DT	Epsom and Ewell	28.9	24.6	-15%	24.6	-15%
EE6	DT	Epsom and Ewell	30.4	34.1	12%	34.1	12%
EE7	DT	Epsom and Ewell	33.5	28.4	-15%	28.4	-15%
15	DT	Kingston-Upon-Thames	41.0	34.8	-15%	34.8	-15%
Hassocks							
MSAQ19	DT	Mid Sussex	17.4	12.8	-26%	17.1	-2%
MSAQ16	DT	Mid Sussex	19.9	15.5	-22%	23.8	20%
MSAQ18	DT	Mid Sussex	28.1	16.8	-40%	26.9	-4%
MSAQ23	DT	Mid Sussex	34.5	16.8	-51%	26.8	-22%
MSAQ15	DT	Mid Sussex	35.1	16.1	-54%	25.3	-28%
MSAQ13	DT	Mid Sussex	38.9	15.2	-61%	23.1	-41%
MSAQ11	DT	Mid Sussex	40.1	17.0	-58%	27.3	-32%
MSAQ10	DT	Mid Sussex	41.2	23.3	-43%	41.1	0%
Hooley							
RG7	CM	Reigate and Banstead	47.4	37.1	-22%	37.1	-22%
RB193	DT	Reigate and Banstead	24.6	34.0	38%	34.0	38%
RB191	DT	Reigate and Banstead	26.5	34.9	32%	34.9	32%
RB196	DT	Reigate and Banstead	26.8	28.8	7%	28.8	7%
RB187	DT	Reigate and Banstead	27.0	36.2	34%	36.2	34%
RB209	DT	Reigate and Banstead	27.8	31.9	15%	31.9	15%
RB192	DT	Reigate and Banstead	28.5	34.8	22%	34.8	22%
RB215	DT	Reigate and Banstead	29.0	28.7	-1%	28.7	-1%
RB190	DT	Reigate and Banstead	30.7	37.8	23%	37.8	23%
RB186	DT	Reigate and Banstead	30.8	35.7	16%	35.7	16%
RB189	DT	Reigate and Banstead	31.4	39.1	24%	39.1	24%
RB188	DT	Reigate and Banstead	32.2	42.0	30%	42.0	30%
RB194	DT	Reigate and Banstead	32.5	33.8	4%	33.8	4%
RB214	DT	Reigate and Banstead	33.1	27.8	-16%	27.8	-16%
RB199	DT	Reigate and Banstead	34.1	31.7	-7%	31.7	-7%

LA ID	Type	Monitoring Authority	2018 Monitored NO ₂ (µg/m ³)	Non-adjusted Modelled NO ₂ (µg/m ³)	Difference ¹ before adjustment	Adjusted Modelled NO ₂ (µg/m ³)	Difference ¹ post-adjustment
RB201	DT	Reigate and Banstead	34.2	32.1	-6%	32.1	-6%
RB206	DT	Reigate and Banstead	34.5	37.2	8%	37.2	8%
RB184	DT	Reigate and Banstead	34.8	29.4	-16%	29.4	-16%
RB207	DT	Reigate and Banstead	35.2	37.8	8%	37.8	8%
RB197	DT	Reigate and Banstead	36.2	34.4	-5%	34.4	-5%
RB183	DT	Reigate and Banstead	36.4	24.8	-32%	24.8	-32%
RB213	DT	Reigate and Banstead	36.5	26.5	-27%	26.5	-27%
RB211	DT	Reigate and Banstead	36.6	26.3	-28%	26.3	-28%
RB204	DT	Reigate and Banstead	36.8	37.6	2%	37.6	2%
RB203	DT	Reigate and Banstead	36.9	36.0	-2%	36.0	-2%
RB195	DT	Reigate and Banstead	37.0	33.1	-11%	33.1	-11%
RB202	DT	Reigate and Banstead	37.7	35.2	-7%	35.2	-7%
RB198	DT	Reigate and Banstead	38.2	32.7	-14%	32.7	-14%
RB210	DT	Reigate and Banstead	39.3	32.1	-18%	32.1	-18%
RB212	DT	Reigate and Banstead	39.3	25.6	-35%	25.6	-35%
RB146	DT	Reigate and Banstead	40.4	37.2	-8%	37.2	-8%
RB200	DT	Reigate and Banstead	42.1	32.8	-22%	32.8	-22%
RB216	DT	Reigate and Banstead	42.5	31.5	-26%	31.5	-26%
RB218	DT	Reigate and Banstead	42.6	32.1	-25%	32.1	-25%
RB137	DT	Reigate and Banstead	43.2	29.9	-31%	29.9	-31%
RB217	DT	Reigate and Banstead	43.2	33.1	-23%	33.1	-23%
RB205	DT	Reigate and Banstead	44.0	39.5	-10%	39.5	-10%
RB136	DT	Reigate and Banstead	45.9	41.4	-10%	41.4	-10%
RB181	DT	Reigate and Banstead	47.0	32.6	-31%	32.6	-31%
RB208	DT	Reigate and Banstead	53.0	37.1	-30%	37.1	-30%
Horley (A23 Brighton Road)							
BR15	DT	Arup	30.2	27.4	-9%	31.2	3%
BR16	DT	Arup	33.6	29.3	-13%	33.8	1%
BR14	DT	Arup	35.6	29.1	-18%	33.6	-6%
BR13	DT	Arup	40.0	31.2	-22%	36.2	-9%
BR18	DT	Arup	41.2	30.3	-26%	35.1	-15%
BR20	DT	Arup	45.1	32.7	-28%	38.2	-15%
BR17	DT	Arup	47.1	30.8	-35%	35.8	-24%
BR19	DT	Arup	49.0	31.6	-35%	36.8	-25%
RB149	DT	Reigate and Banstead	43.4	34.0	-22%	39.9	-8%
Horsham							
HO2	CM	Horsham	25.4	21.9	-14%	27.0	6%

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Horsham 6	DT	Horsham	23.2	15.8	-32%	18.0	-22%
Horsham 8	DT	Horsham	24.8	19.2	-23%	23.4	-6%
Horsham 7	DT	Horsham	27.4	21.6	-21%	28.0	2%
Horsham 5	DT	Horsham	28.5	16.5	-42%	18.2	-36%
Horsham 9N	DT	Horsham	31.3	22.6	-28%	28.0	-11%
Merstham							
RB110	DT	Reigate and Banstead	27.1	33.6	24%	33.6	24%
RB20	DT	Reigate and Banstead	30.3	30.6	1%	30.6	1%
RB124	DT	Reigate and Banstead	31.7	30.5	-4%	30.5	-4%
RB152	DT	Reigate and Banstead	32.4	28.1	-13%	28.1	-13%
Morden (A24)							
2 (GA)	DT	Merton	36.7	33.8	-8%	39.8	9%
53	DT	Merton	43.1	28.8	-33%	32.8	-24%
Nutfield							
TD37	DT	Tandridge	19.6	19.5	0%	22.6	15%
TD35	DT	Tandridge	28.4	24.2	-15%	30.0	6%
TD27	DT	Tandridge	30.2	20.4	-33%	24.0	-21%
TD40	DT	Tandridge	34.3	20.9	-39%	24.8	-28%
Reigate							
RB114	DT	Reigate and Banstead	23.5	19.3	-18%	24.6	5%
RB113	DT	Reigate and Banstead	24.9	17.7	-29%	21.7	-13%
RB115	DT	Reigate and Banstead	26.3	21.8	-17%	29.0	10%
RB107	DT	Reigate and Banstead	27.0	19.5	-28%	23.5	-13%
RB111	DT	Reigate and Banstead	27.1	22.2	-18%	28.3	4%
RB44	DT	Reigate and Banstead	28.5	22.6	-21%	29.0	2%
RB45	DT	Reigate and Banstead	29.2	19.2	-34%	23.0	-21%
RB116	DT	Reigate and Banstead	29.6	24.9	-16%	32.9	11%
RB109	DT	Reigate and Banstead	30.3	24.4	-19%	32.0	6%
RB1	DT	Reigate and Banstead	30.6	21.2	-31%	26.4	-14%
RB46	DT	Reigate and Banstead	31.0	21.3	-31%	26.6	-14%
RB104	DT	Reigate and Banstead	34.0	23.7	-30%	30.7	-10%
RB47	DT	Reigate and Banstead	34.8	21.5	-38%	27.0	-23%
RB105	DT	Reigate and Banstead	35.0	21.1	-40%	26.3	-25%
RB117	DT	Reigate and Banstead	36.3	23.7	-35%	30.7	-15%

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Storrington							
HO4	CM	Horsham	23.0	15.1	-35%	22.6	-2%
Storrington 17n	DT	Horsham	13.3	12.2	-8%	15.8	19%
Storrington 18n	DT	Horsham	19.1	17.4	-9%	27.6	45%
Storrington 7	DT	Horsham	20.9	16.3	-22%	25.1	20%
Storrington 6	DT	Horsham	22.3	16.5	-26%	25.6	15%
Storrington 5	DT	Horsham	26.4	18.7	-29%	30.4	15%
Storrington 12n	DT	Horsham	28.6	15.9	-44%	24.4	-15%
Storrington 13n	DT	Horsham	29.9	20.6	-31%	34.3	15%
Storrington 4	DT	Horsham	35.8	16.6	-54%	25.8	-28%
Storrington 11n	DT	Horsham	37.8	15.2	-60%	22.8	-40%
Storrington 1	DT	Horsham	44.7	20.3	-55%	33.6	-25%
Warlingham							
TD31	DT	Tandridge	20.0	18.3	-9%	21.7	8%
TD23	DT	Tandridge	26.1	17.3	-34%	19.8	-24%
Sites using a generic adjustment factor							
LGW3	CM	Crawley	30.0	41.6	39%	43.7	46%
RG3	CM	Reigate and Banstead	15.5	17.4	12%	18.1	17%
ST5	CM	Sutton	36.0	28.8	-20%	31.1	-14%
ST6	CM	Sutton	57.0	28.9	-49%	31.7	-44%
ST4	CM	Sutton	63.0	30.1	-52%	33.5	-47%
HR11	DT	Arup	22.5	32.0	42%	34.3	52%
HR1	DT	Arup	28.8	32.7	14%	35.1	22%
HR16	DT	Arup	30.3	34.8	15%	37.7	25%
HR15	DT	Arup	32.5	34.5	6%	37.4	15%
BR2	DT	Arup	36.9	33.9	-8%	38.4	4%
HR20	DT	Arup	37.3	35.2	-6%	38.2	2%
HR8	DT	Arup	41.4	36.1	-13%	39.3	-5%
HR18	DT	Arup	42.0	40.7	-3%	46.5	11%
CR49	DT	Crawley	18.0	20.2	12%	21.2	18%
CR75	DT	Crawley	21.0	18.7	-11%	20.1	-4%
CR51	DT	Crawley	22.0	25.9	18%	28.2	28%
CR89	DT	Crawley	22.0	22.9	4%	25.0	13%
CR81	DT	Crawley	24.0	38.1	59%	44.1	84%
CR48	DT	Crawley	25.0	30.4	22%	34.3	37%
CR79	DT	Crawley	25.0	27.2	9%	30.6	22%
CR88	DT	Crawley	26.0	20.6	-21%	23.0	-11%

LA ID	Type	Monitoring Authority	2018 Monitored NO ₂ (µg/m ³)	Non-adjusted Modelled NO ₂ (µg/m ³)	Difference ¹ before adjustment	Adjusted Modelled NO ₂ (µg/m ³)	Difference ¹ post-adjustment
CR94	DT	Crawley	26.0	33.7	30%	36.4	40%
CR80	DT	Crawley	28.0	33.5	20%	39.0	39%
CR96	DT	Crawley	30.0	21.7	-28%	23.6	-21%
CR95	DT	Crawley	31.0	33.4	8%	36.0	16%
CR74	DT	Crawley	34.0	23.4	-31%	25.5	-25%
CR91	DT	Crawley	34.0	32.4	-5%	34.8	2%
CR76	DT	Crawley	35.0	35.4	1%	38.4	10%
CR77	DT	Crawley	35.0	29.9	-14%	31.6	-10%
CR62	DT	Crawley	38.0	35.7	-6%	40.5	7%
CR69	DT	Crawley	40.0	40.0	0%	45.7	14%
CR 55	DT	Crawley	41.0	39.1	-5%	44.5	9%
CR93	DT	Crawley	48.0	39.8	-17%	43.9	-9%
CY41	DT	Croydon	52.7	31.8	-40%	36.0	-32%
Cobham 7	DT	Elmbridge	31.6	23.8	-25%	26.2	-17%
Cobham 1	DT	Elmbridge	33.3	27.6	-17%	30.5	-8%
EE36	DT	Epsom and Ewell	23.5	21.7	-8%	23.1	-2%
EE14	DT	Epsom and Ewell	25.2	22.3	-11%	23.9	-5%
EE46	DT	Epsom and Ewell	27.1	23.5	-13%	25.5	-6%
EE1	DT	Epsom and Ewell	29.6	27.4	-7%	30.3	2%
EE39	DT	Epsom and Ewell	29.9	28.0	-6%	31.1	4%
EE51	DT	Epsom and Ewell	30.1	22.9	-24%	24.7	-18%
EE49	DT	Epsom and Ewell	34.1	30.1	-12%	33.6	-1%
A25	DT	Guildford	16.5	13.6	-18%	14.7	-11%
N. Horsham 2N	DT	Horsham	18.3	16.9	-8%	17.9	-2%
Storrington 15n	DT	Horsham	18.9	14.8	-22%	16.3	-14%
Storrington 14n	DT	Horsham	19.7	20.4	3%	23.3	18%
N. Horsham 1N	DT	Horsham	21.8	24.7	13%	28.3	30%
Southwater 1	DT	Horsham	27.3	13.6	-50%	14.7	-46%
20	DT	Kingston-Upon-Thames	34.9	28.2	-19%	31.9	-9%
33	DT	Lewes	21.8	14.3	-34%	15.7	-28%
34	DT	Lewes	29.7	16.5	-44%	18.4	-38%
MSAQ1	DT	Mid Sussex	20.1	24.1	20%	27.4	36%
MSAQ7	DT	Mid Sussex	22.5	28.8	28%	33.1	47%
MSAQ27	DT	Mid Sussex	22.8	22.8	0%	26.1	14%
MSAQ26	DT	Mid Sussex	23.6	12.9	-45%	13.5	-43%
MSAQ24	DT	Mid Sussex	24.0	18.4	-23%	20.7	-14%
MSAQ28	DT	Mid Sussex	24.7	23.3	-6%	26.8	8%
MSAQ6	DT	Mid Sussex	26.2	32.3	23%	37.6	43%

LA ID	Type	Monitoring Authority	2018 Monitored NO ₂ (µg/m ³)	Non-adjusted Modelled NO ₂ (µg/m ³)	Difference ¹ before adjustment	Adjusted Modelled NO ₂ (µg/m ³)	Difference ¹ post-adjustment
MSAQ25	DT	Mid Sussex	26.9	31.0	15%	36.0	34%
MSAQ21	DT	Mid Sussex	29.0	17.5	-40%	18.9	-35%
MSAQ5	DT	Mid Sussex	30.0	19.1	-36%	21.8	-27%
MSAQ3	DT	Mid Sussex	34.4	23.5	-32%	26.6	-23%
RB40	DT	Reigate and Banstead	19.0	26.3	39%	29.3	54%
RB73	DT	Reigate and Banstead	22.0	22.4	2%	23.6	7%
RB82	DT	Reigate and Banstead	22.0	28.2	28%	32.1	46%
RB140	DT	Reigate and Banstead	22.6	24.8	10%	27.4	21%
RB141	DT	Reigate and Banstead	22.9	30.7	34%	34.5	51%
RB81	DT	Reigate and Banstead	23.0	23.2	1%	25.8	12%
RB102 2	DT	Reigate and Banstead	23.4	26.8	14%	30.6	31%
RB43	DT	Reigate and Banstead	23.8	31.0	30%	34.8	46%
RB177	DT	Reigate and Banstead	23.8	33.6	41%	38.0	60%
RB50	DT	Reigate and Banstead	24.7	28.9	17%	32.8	33%
RB167	DT	Reigate and Banstead	24.7	18.8	-24%	19.5	-21%
RB72	DT	Reigate and Banstead	25.1	22.7	-9%	24.0	-4%
RB95	DT	Reigate and Banstead	25.1	25.4	1%	28.3	13%
RB12	DT	Reigate and Banstead	25.3	22.5	-11%	24.1	-5%
RB176	DT	Reigate and Banstead	25.5	32.7	28%	37.0	45%
RB153	DT	Reigate and Banstead	25.9	23.3	-10%	26.3	1%
RB175	DT	Reigate and Banstead	27.5	27.0	-2%	30.0	9%
RB106	DT	Reigate and Banstead	27.7	33.2	20%	37.9	37%
RB151	DT	Reigate and Banstead	29.4	23.3	-21%	25.1	-15%
RB174	DT	Reigate and Banstead	30.3	28.5	-6%	31.8	5%
RB122	DT	Reigate and Banstead	30.6	27.7	-9%	31.1	1%
RB145	DT	Reigate and Banstead	30.9	30.4	-2%	34.1	10%
RB120	DT	Reigate and Banstead	31.5	24.2	-23%	26.7	-15%
RB125	DT	Reigate and Banstead	31.8	31.0	-3%	35.3	11%
RB21	DT	Reigate and Banstead	32.4	26.4	-18%	29.6	-9%
RB150	DT	Reigate and Banstead	33.1	28.9	-13%	32.7	-1%
RB123	DT	Reigate and Banstead	33.5	19.8	-41%	20.8	-38%
RB49	DT	Reigate and Banstead	39.2	31.1	-21%	35.5	-10%
RB121	DT	Reigate and Banstead	41.1	25.2	-39%	28.0	-32%
DT12	DT	Sevenoaks	39.8	40.1	1%	46.4	17%
ST32	DT	Sutton	27.0	30.2	12%	32.9	22%
ST24	DT	Sutton	30.6	27.8	-9%	29.6	-3%
ST36	DT	Sutton	32.8	31.1	-5%	34.1	4%
ST35	DT	Sutton	34.1	35.7	5%	39.6	16%

LA ID	Type	Monitoring Authority	2018 Monitored NO ₂ (µg/m ³)	Non-adjusted Modelled NO ₂ (µg/m ³)	Difference ¹ before adjustment	Adjusted Modelled NO ₂ (µg/m ³)	Difference ¹ post-adjustment
BL	DT	Sutton	34.1	27.1	-20%	29.0	-15%
ST25	DT	Sutton	34.7	32.4	-7%	35.9	4%
ST38	DT	Sutton	36.8	32.9	-11%	36.2	-2%
ST22	DT	Sutton	37.2	35.3	-5%	39.9	7%
ST33	DT	Sutton	38.8	25.0	-36%	26.5	-32%
ST39	DT	Sutton	39.3	32.6	-17%	35.8	-9%
ST27	DT	Sutton	39.6	25.8	-35%	27.3	-31%
ST26	DT	Sutton	41.3	24.6	-40%	26.2	-37%
ST29	DT	Sutton	41.5	29.4	-29%	32.3	-22%
ST34	DT	Sutton	42.8	29.2	-32%	31.7	-26%
ST40	DT	Sutton	44.9	29.9	-33%	33.3	-26%
TD38	DT	Tandridge	24.2	22.9	-5%	25.0	3%
TD14	DT	Tandridge	26.9	21.9	-19%	24.1	-10%
TD5	DT	Tandridge	28.8	28.5	-1%	31.9	11%
TD10	DT	Tandridge	32.0	25.2	-21%	28.1	-12%
TD11	DT	Tandridge	33.4	26.5	-21%	29.3	-12%
Cran 1	DT	Waverley	16.1	18.2	13%	20.5	27%
Cran 4	DT	Waverley	19.5	12.5	-36%	13.4	-31%
W2	DT	Wealden	23.6	11.8	-50%	12.3	-48%
W10	DT	Wealden	34.6	20.5	-41%	23.3	-33%
W4	DT	Wealden	36.7	16.0	-56%	17.4	-53%

¹ Calculated as ((modelled – monitored) / monitored)

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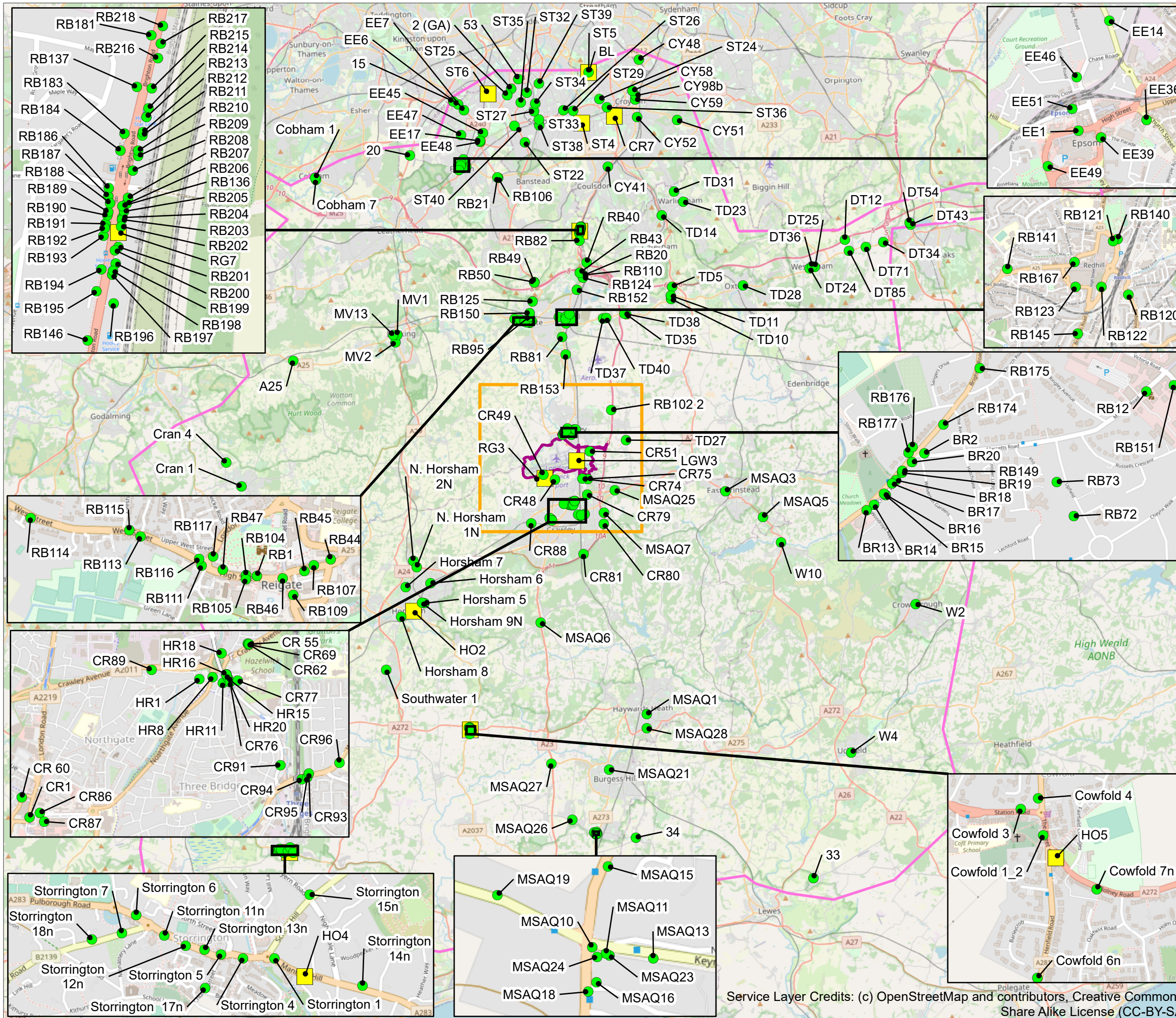
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5 Glossary

5.1 Glossary of Terms

Table 5.1.1: Glossary of Terms

Term	Description
APIS	Air Pollution Information System
ASR	Annual Status Report
Defra	Department for Environment Food and Rural Affairs
NO ₂	Nitrogen dioxide
TRA	Traffic Reliability Area



- Project Site Boundary (PEIR)
- 11 km x 10 km Domain
- Wider Study Area
- Continuous Monitor
- Passive Monitor (Diffusion Tube)

DOCUMENT
Preliminary Environmental Information Report

DRAWING TITLE
Location of Monitoring Sites Used for Model Verification

DATE
September 2021

	DRAWING NO. APPENDIX 13.6.1 FIGURE 2.1.1	REVISION For PEIR Issue
	DRAWN BY TC	PM / CHECKED BY MK



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