

A12 Chelmsford to A120 widening scheme

TR010060

6.3 ENVIRONMENTAL STATEMENT

APPENDIX 6.5 AIR QUALITY MODELLING RESULTS

APFP Regulation 5(2)(a)

Planning Act 2008

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

Volume 6

August 2022

Infrastructure Planning

Planning Act 2008

A12 Chelmsford to A120 widening scheme

Development Consent Order 202[]

ENVIRONMENTAL STATEMENT

APPENDIX 6.5 AIR QUALITY MODELLING RESULTS

Regulation Reference	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010060
Application Document Reference	TR010060/APP/6.3
Author	A12 Project Team & National Highways

Version	Date	Status of Version
Rev 1	August 2022	DCO Application

CONTENTS

1	Air quality results	2
1.1	Introduction	2
1.2	Construction phase results.....	2
1.3	Operational phase results	13

LIST OF TABLES

Table 1.1 Modelled human health receptor results for NO ₂ , PM ₁₀ and PM _{2.5} in the peak construction year (2025)	3
Table 1.2 Modelled ecological nitrogen deposition results in the peak construction year (2025) for receptors where results were deemed to be potentially significant according to DMRB LA 105 criteria	10
Table 1.3 Modelled PCM compliance risk receptor results, representative of qualifying features, in the peak construction year (2025).....	12
Table 1.4 Modelled human health receptor results for NO ₂ , PM ₁₀ and PM _{2.5} in the opening year (2027)	13
Table 1.5 Modelled ecological nitrogen deposition results in the opening year (2027) for receptors where results were deemed to be potentially significant according to DMRB LA 105 criteria	24
Table 1.6 Modelled PCM compliance risk receptor results, representative of qualifying features, in the opening year (2027)	35

1 Air quality results

1.1 Introduction

- 1.1.1 This appendix provides the results for all modelled human health, ecological and Pollution Climate Mapping (PCM) receptors, assessed for the peak construction year (2025) and the opening year (2027) for the proposed scheme. Receptors can be identified by grid reference and the receptor type is also provided.

1.2 Construction phase results

Human health

- 1.2.1 Receptor results shown in Table 1.1 have been ordered according to the highest annual mean NO₂ concentration predicted in the opening Do-Something (DS) year.

Table 1.1 Modelled human health receptor results for NO₂, PM₁₀ and PM_{2.5} in the peak construction year (2025)

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change
R193	596019	225284	Residential	45.6	42.3	42.5	0.2	Imperceptible	21.5	20.3	20.3	0.0	Imperceptible	15.0	14.1	14.1	0.0	Imperceptible
R189	595059	225171	Residential	44.3	40.9	41.0	0.1	Imperceptible	20.7	19.4	19.4	0.0	Imperceptible	14.3	13.3	13.3	0.0	Imperceptible
R191	595954	225263	Residential	42.6	39.4	39.6	0.2	Imperceptible	20.8	19.6	19.6	0.0	Imperceptible	14.4	13.5	13.5	0.0	Imperceptible
R194	596035	225286	Residential	41.5	38.4	38.6	0.2	Imperceptible	20.9	19.7	19.7	0.0	Imperceptible	14.5	13.5	13.5	0.0	Imperceptible
R187	595124	225129	Residential	40.1	37.0	37.1	0.1	Imperceptible	20.2	19.0	19.0	0.0	Imperceptible	13.9	12.9	12.9	0.0	Imperceptible
R225	576860	210952	Residential	41.5	36.9	37.1	0.2	Imperceptible	21.4	20.1	20.2	0.1	Imperceptible	14.1	13.0	13.1	0.1	Imperceptible
R103	584681	217139	Residential	40.4	36.4	37.0	0.6	Small	20.5	19.2	19.4	0.2	Imperceptible	13.7	12.6	12.7	0.1	Imperceptible
R227	584070	216609	Residential	38.6	34.7	35.2	0.5	Small	20.1	18.8	19.0	0.2	Imperceptible	13.3	12.3	12.4	0.1	Imperceptible
R196	596063	225292	Residential	37.9	34.8	34.9	0.1	Imperceptible	20.4	19.2	19.2	0.0	Imperceptible	13.9	13.0	13.0	0.0	Imperceptible
R192	596004	225271	School	37.5	34.6	34.7	0.1	Imperceptible	20.4	19.2	19.2	0.0	Imperceptible	14.0	13.0	13.0	0.0	Imperceptible
R199	596003	225337	Residential	36.8	33.8	34.0	0.2	Imperceptible	20.3	19.1	19.1	0.0	Imperceptible	13.8	12.8	12.9	0.1	Imperceptible
R30	576848	210942	Residential	38.0	33.7	33.9	0.2	Imperceptible	21.0	19.7	19.8	0.1	Imperceptible	13.7	12.6	12.7	0.1	Imperceptible
R238	595048	225178	Residential	36.8	33.7	33.8	0.1	Imperceptible	19.7	18.4	18.4	0.0	Imperceptible	13.3	12.3	12.3	0.0	Imperceptible
R19	575251	210154	Residential	36.5	32.9	33.1	0.2	Imperceptible	20.4	19.0	19.1	0.1	Imperceptible	13.4	12.3	12.4	0.1	Imperceptible
R167	591542	223625	Residential	35.6	32.2	32.7	0.5	Small	21.3	20.0	20.1	0.1	Imperceptible	13.8	12.7	12.9	0.2	Imperceptible
R214	596335	225466	Residential	35.9	32.5	32.6	0.1	Imperceptible	20.1	18.8	18.9	0.1	Imperceptible	13.6	12.6	12.6	0.0	Imperceptible
R240	595139	225127	Residential	35.3	32.5	32.6	0.1	Imperceptible	19.6	18.4	18.4	0.0	Imperceptible	13.3	12.3	12.3	0.0	Imperceptible
R239	595093	225186	Residential	34.9	32.0	32.2	0.2	Imperceptible	19.5	18.3	18.3	0.0	Imperceptible	13.2	12.2	12.2	0.0	Imperceptible
R5	574080	203478	Residential	35.0	32.0	32.1	0.1	Imperceptible	20.8	19.7	19.7	0.0	Imperceptible	13.8	12.9	12.9	0.0	Imperceptible
R164	591501	223574	Residential	34.8	31.4	31.9	0.5	Small	21.1	19.8	20.0	0.2	Imperceptible	13.6	12.5	12.7	0.2	Imperceptible
R226	583827	216475	Residential	34.8	31.4	31.9	0.5	Small	19.4	18.1	18.2	0.1	Imperceptible	12.9	11.9	12.0	0.1	Imperceptible
R201	596200	225355	Residential	34.9	31.6	31.7	0.1	Imperceptible	19.9	18.7	18.7	0.0	Imperceptible	13.5	12.5	12.5	0.0	Imperceptible
R26	576216	210638	Residential	35.7	31.4	31.6	0.2	Imperceptible	20.6	19.3	19.4	0.1	Imperceptible	13.3	12.2	12.2	0.0	Imperceptible
R186	594969	225095	Residential	34.0	31.2	31.3	0.1	Imperceptible	20.1	18.9	18.9	0.0	Imperceptible	13.3	12.3	12.4	0.1	Imperceptible
R210	596299	225429	Residential	34.4	31.2	31.3	0.1	Imperceptible	19.9	18.6	18.7	0.1	Imperceptible	13.4	12.4	12.5	0.1	Imperceptible

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change
R237	595040	225182	Residential	33.9	31.0	31.1	0.1	Imperceptible	19.3	18.0	18.1	0.1	Imperceptible	13.0	12.0	12.0	0.0	Imperceptible
R224	576770	210907	Residential	34.8	30.8	31.0	0.2	Imperceptible	20.6	19.3	19.4	0.1	Imperceptible	13.2	12.2	12.2	0.0	Imperceptible
R202	596224	225368	Residential	33.6	30.4	30.5	0.1	Imperceptible	19.8	18.5	18.6	0.1	Imperceptible	13.3	12.3	12.4	0.1	Imperceptible
R93	583855	216504	Residential	33.4	30.0	30.3	0.3	Imperceptible	19.2	18.0	18.0	0.0	Imperceptible	12.8	11.7	11.8	0.1	Imperceptible
R40	579175	211897	Residential	33.8	30.1	30.3	0.2	Imperceptible	18.0	16.7	16.7	0.0	Imperceptible	12.4	11.3	11.4	0.1	Imperceptible
R207	596274	225405	Residential	33.4	30.2	30.3	0.1	Imperceptible	19.8	18.5	18.5	0.0	Imperceptible	13.3	12.3	12.3	0.0	Imperceptible
R200	596197	225350	Residential	33.4	30.2	30.3	0.1	Imperceptible	19.8	18.5	18.6	0.1	Imperceptible	13.3	12.3	12.3	0.0	Imperceptible
R209	596285	225414	Residential	33.3	30.1	30.2	0.1	Imperceptible	19.7	18.5	18.5	0.0	Imperceptible	13.3	12.3	12.3	0.0	Imperceptible
R188	594927	225171	Residential	33.0	30.1	30.2	0.1	Imperceptible	19.9	18.7	18.7	0.0	Imperceptible	13.1	12.1	12.1	0.0	Imperceptible
R203	596231	225372	Residential	33.2	30.0	30.1	0.1	Imperceptible	19.7	18.5	18.5	0.0	Imperceptible	13.3	12.3	12.3	0.0	Imperceptible
R211	596307	225433	Residential	33.2	30.0	30.1	0.1	Imperceptible	19.7	18.5	18.5	0.0	Imperceptible	13.3	12.3	12.3	0.0	Imperceptible
R161	591334	223453	Residential	32.6	29.6	30.0	0.4	Imperceptible	20.9	19.7	19.8	0.1	Imperceptible	13.4	12.4	12.5	0.1	Imperceptible
R35	578741	211745	Residential	34.2	29.8	30.0	0.2	Imperceptible	19.5	18.2	18.2	0.0	Imperceptible	12.9	11.8	11.9	0.1	Imperceptible
R208	596280	225409	Residential	33.1	29.9	30.0	0.1	Imperceptible	19.7	18.5	18.5	0.0	Imperceptible	13.2	12.3	12.3	0.0	Imperceptible
R198	596154	225324	Residential	32.9	29.8	29.9	0.1	Imperceptible	19.7	18.5	18.5	0.0	Imperceptible	13.3	12.3	12.3	0.0	Imperceptible
R216	596364	225487	Residential	32.7	29.5	29.6	0.1	Imperceptible	19.7	18.4	18.4	0.0	Imperceptible	13.2	12.2	12.2	0.0	Imperceptible
R218	596375	225498	Residential	32.6	29.4	29.5	0.1	Imperceptible	19.6	18.4	18.4	0.0	Imperceptible	13.2	12.2	12.2	0.0	Imperceptible
R215	596355	225477	Residential	32.5	29.3	29.4	0.1	Imperceptible	19.6	18.4	18.4	0.0	Imperceptible	13.2	12.2	12.2	0.0	Imperceptible
R195b	596022	225266	Residential	32.0	29.3	29.4	0.1	Imperceptible	19.7	18.5	18.5	0.0	Imperceptible	13.3	12.3	12.3	0.0	Imperceptible
R241	595148	225123	Residential	32.0	29.3	29.4	0.1	Imperceptible	19.2	17.9	18.0	0.1	Imperceptible	12.8	11.9	11.9	0.0	Imperceptible
R169	591620	223700	Residential	31.8	28.7	29.2	0.5	Small	20.9	19.6	19.7	0.1	Imperceptible	13.4	12.3	12.5	0.2	Imperceptible
R95	583964	216584	Residential	32.0	28.6	29.0	0.4	Imperceptible	19.0	17.7	17.8	0.1	Imperceptible	12.6	11.5	11.6	0.1	Imperceptible
R25	576003	210512	Residential	32.8	28.8	29.0	0.2	Imperceptible	20.3	18.9	19.0	0.1	Imperceptible	12.9	11.8	11.9	0.1	Imperceptible
R158	591008	223133	Residential	32.7	28.6	28.9	0.3	Imperceptible	20.9	19.5	19.7	0.2	Imperceptible	13.4	12.3	12.4	0.1	Imperceptible
R31	576927	210957	Residential	32.0	28.7	28.8	0.1	Imperceptible	20.5	19.4	19.4	0.0	Imperceptible	13.2	12.2	12.3	0.1	Imperceptible
R62	582391	213337	Residential	31.7	28.4	28.6	0.2	Imperceptible	19.9	18.7	18.7	0.0	Imperceptible	13.2	12.2	12.2	0.0	Imperceptible
R22	575809	210407	Residential	32.4	28.4	28.6	0.2	Imperceptible	19.8	18.5	18.6	0.1	Imperceptible	12.9	11.8	11.8	0.0	Imperceptible

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change
R205	596264	225392	Residential	31.6	28.5	28.6	0.1	Imperceptible	19.5	18.3	18.3	0.0	Imperceptible	13.1	12.1	12.1	0.0	Imperceptible
R157	590764	222848	Residential	33.1	28.1	28.4	0.3	Imperceptible	20.8	19.4	19.6	0.2	Imperceptible	13.0	11.9	12.1	0.2	Imperceptible
R197	596114	225300	Residential	31.3	28.3	28.4	0.1	Imperceptible	19.5	18.3	18.3	0.0	Imperceptible	13.1	12.1	12.1	0.0	Imperceptible
P4a	575128	210093	Planning Application	31.3	28.1	28.3	0.2	Imperceptible	19.7	18.4	18.5	0.1	Imperceptible	12.8	11.7	11.8	0.1	Imperceptible
R235	594900	225171	Residential	30.9	28.2	28.3	0.1	Imperceptible	19.7	18.4	18.4	0.0	Imperceptible	12.8	11.8	11.9	0.1	Imperceptible
R222	598918	228906	Hospital	32.2	27.9	27.9	0.0	Imperceptible	19.8	18.6	18.6	0.0	Imperceptible	12.9	11.9	11.9	0.0	Imperceptible
R190	594743	225176	Residential	30.4	27.6	27.7	0.1	Imperceptible	19.9	18.7	18.8	0.1	Imperceptible	13.1	12.2	12.2	0.0	Imperceptible
R34	578861	211738	Residential	31.0	27.5	27.7	0.2	Imperceptible	19.2	17.9	17.9	0.0	Imperceptible	12.6	11.5	11.6	0.1	Imperceptible
R236	595027	225190	Residential	30.4	27.6	27.7	0.1	Imperceptible	18.9	17.6	17.7	0.1	Imperceptible	12.6	11.6	11.6	0.0	Imperceptible
R234	594881	225171	Residential	30.3	27.6	27.7	0.1	Imperceptible	19.6	18.4	18.4	0.0	Imperceptible	12.8	11.8	11.8	0.0	Imperceptible
R159	591224	223340	Residential	30.7	27.3	27.6	0.3	Imperceptible	20.7	19.4	19.5	0.1	Imperceptible	13.2	12.2	12.3	0.1	Imperceptible
R141	588028	220400	Residential	30.4	27.2	27.6	0.4	Imperceptible	19.7	18.4	18.5	0.1	Imperceptible	12.4	11.4	11.6	0.2	Imperceptible
R14	574255	209448	Residential	29.1	27.2	27.4	0.2	Imperceptible	20.2	19.0	19.1	0.1	Imperceptible	13.0	12.2	12.2	0.0	Imperceptible
R217	596382	225497	Residential	30.4	27.3	27.4	0.1	Imperceptible	19.4	18.1	18.2	0.1	Imperceptible	12.9	11.9	11.9	0.0	Imperceptible
R59	582292	213254	Residential	30.4	27.0	27.2	0.2	Imperceptible	19.5	18.2	18.2	0.0	Imperceptible	12.8	11.7	11.8	0.1	Imperceptible
R96	584087	216605	Residential	30.0	26.8	27.1	0.3	Imperceptible	19.0	17.8	17.9	0.1	Imperceptible	12.2	11.2	11.3	0.1	Imperceptible
R41	579039	211908	Residential	30.5	26.8	27.0	0.2	Imperceptible	17.6	16.3	16.4	0.1	Imperceptible	12.0	11.0	11.0	0.0	Imperceptible
R213	596334	225447	Residential	30.0	26.9	27.0	0.1	Imperceptible	19.3	18.1	18.1	0.0	Imperceptible	12.9	11.9	11.9	0.0	Imperceptible
P8	578785	211775	Planning Application	30.4	26.7	26.9	0.2	Imperceptible	19.1	17.8	17.8	0.0	Imperceptible	12.5	11.4	11.5	0.1	Imperceptible
R195	596104	225290	Residential	29.4	26.6	26.7	0.1	Imperceptible	19.3	18.1	18.1	0.0	Imperceptible	12.9	11.9	11.9	0.0	Imperceptible
R86	583347	216014	Residential	30.0	26.2	26.5	0.3	Imperceptible	18.7	17.5	17.5	0.0	Imperceptible	12.3	11.2	11.3	0.1	Imperceptible
R48	579515	212011	Residential	28.8	26.0	26.5	0.5	Small	19.0	17.8	17.9	0.1	Imperceptible	12.3	11.3	11.4	0.1	Imperceptible
R233	594819	225172	Residential	28.8	26.2	26.3	0.1	Imperceptible	19.5	18.2	18.3	0.1	Imperceptible	12.7	11.7	11.7	0.0	Imperceptible
R60	582419	213266	Residential	29.3	26.0	26.2	0.2	Imperceptible	19.4	18.2	18.2	0.0	Imperceptible	12.7	11.7	11.7	0.0	Imperceptible
R212	596324	225434	Residential	29.1	26.1	26.2	0.1	Imperceptible	19.2	18.0	18.0	0.0	Imperceptible	12.8	11.8	11.8	0.0	Imperceptible
R87	583308	216064	Residential	29.2	25.8	26.1	0.3	Imperceptible	18.7	17.4	17.5	0.1	Imperceptible	12.3	11.2	11.3	0.1	Imperceptible

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change
R133	587587	218975	Residential	29.2	25.8	26.0	0.2	Imperceptible	19.4	18.3	18.3	0.0	Imperceptible	12.5	11.6	11.6	0.0	Imperceptible
R232	594801	225173	Residential	28.4	25.8	25.8	0.0	Imperceptible	19.5	18.2	18.2	0.0	Imperceptible	12.6	11.7	11.7	0.0	Imperceptible
R168	591372	223677	Residential	28.8	25.5	25.7	0.2	Imperceptible	21.2	19.9	20.0	0.1	Imperceptible	13.7	12.7	12.7	0.0	Imperceptible
R144	588585	220886	Residential	28.4	25.4	25.7	0.3	Imperceptible	19.5	18.2	18.4	0.2	Imperceptible	12.3	11.3	11.4	0.1	Imperceptible
R231	594796	225173	Residential	28.3	25.7	25.7	0.0	Imperceptible	19.5	18.2	18.2	0.0	Imperceptible	12.6	11.7	11.7	0.0	Imperceptible
R156	590617	222601	Residential	29.8	25.3	25.6	0.3	Imperceptible	20.4	19.1	19.2	0.1	Imperceptible	12.6	11.6	11.7	0.1	Imperceptible
R45	579452	211974	Residential	27.4	24.8	25.3	0.5	Small	17.4	16.3	16.4	0.1	Imperceptible	11.9	10.9	11.1	0.2	Imperceptible
R42	579404	211913	Residential	27.8	25.1	25.2	0.1	Imperceptible	17.9	16.8	16.8	0.0	Imperceptible	12.3	11.5	11.5	0.0	Imperceptible
R44	579427	211956	Residential	27.6	24.8	25.1	0.3	Imperceptible	17.5	16.3	16.4	0.1	Imperceptible	11.9	11.0	11.1	0.1	Imperceptible
R38	579092	211841	Residential	28.1	24.9	25.1	0.2	Imperceptible	17.4	16.1	16.2	0.1	Imperceptible	11.8	10.8	10.8	0.0	Imperceptible
R204	596065	225385	Residential	27.8	25.0	25.1	0.1	Imperceptible	19.1	17.9	17.9	0.0	Imperceptible	12.6	11.7	11.7	0.0	Imperceptible
P10	579382	211905	Planning Application	27.4	24.7	24.8	0.1	Imperceptible	17.8	16.7	16.7	0.0	Imperceptible	12.2	11.4	11.4	0.0	Imperceptible
R221	598578	228812	Residential	28.3	24.5	24.5	0.0	Imperceptible	19.4	18.2	18.2	0.0	Imperceptible	12.5	11.5	11.5	0.0	Imperceptible
R178	591959	223905	Residential	27.0	24.2	24.4	0.2	Imperceptible	20.3	19.0	19.1	0.1	Imperceptible	12.8	11.8	11.8	0.0	Imperceptible
R185	594770	225036	Residential	26.6	24.0	24.1	0.1	Imperceptible	19.5	18.3	18.3	0.0	Imperceptible	12.7	11.8	11.8	0.0	Imperceptible
R27	576146	210694	Residential	27.3	23.6	23.7	0.1	Imperceptible	19.7	18.3	18.4	0.1	Imperceptible	12.3	11.2	11.2	0.0	Imperceptible
R67	582717	213627	Residential	26.6	23.4	23.6	0.2	Imperceptible	19.0	17.7	17.8	0.1	Imperceptible	12.3	11.2	11.3	0.1	Imperceptible
R43	579432	211922	Residential	26.1	23.4	23.6	0.2	Imperceptible	17.5	16.4	16.4	0.0	Imperceptible	12.0	11.1	11.1	0.0	Imperceptible
R176	591948	223881	Residential	25.4	22.7	23.1	0.4	Imperceptible	20.2	19.0	19.0	0.0	Imperceptible	12.7	11.7	11.8	0.1	Imperceptible
P23	594161	224936	Planning Application	25.6	22.6	22.7	0.1	Imperceptible	17.2	16.0	16.0	0.0	Imperceptible	11.1	10.1	10.1	0.0	Imperceptible
R13	574309	209415	Residential	25.6	22.4	22.5	0.1	Imperceptible	19.9	18.5	18.5	0.0	Imperceptible	12.8	11.6	11.6	0.0	Imperceptible
R140	587940	220304	Residential	25.1	22.2	22.4	0.2	Imperceptible	18.3	17.1	17.2	0.1	Imperceptible	11.7	10.7	10.8	0.1	Imperceptible
R47	579559	212010	Residential	24.6	21.9	22.2	0.3	Imperceptible	18.5	17.2	17.3	0.1	Imperceptible	11.7	10.7	10.8	0.1	Imperceptible
R32	577702	211250	Residential	25.1	22.0	22.1	0.1	Imperceptible	18.5	17.4	17.4	0.0	Imperceptible	12.0	11.0	11.0	0.0	Imperceptible
R46	579505	211978	Residential	24.0	21.6	21.9	0.3	Imperceptible	17.0	15.8	15.9	0.1	Imperceptible	11.4	10.5	10.6	0.1	Imperceptible
R64	582592	213517	Residential	24.7	21.7	21.8	0.1	Imperceptible	18.8	17.5	17.6	0.1	Imperceptible	12.1	11.0	11.1	0.1	Imperceptible

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change
R54	581417	212894	Residential	24.5	21.6	21.8	0.2	Imperceptible	19.3	18.1	18.1	0.0	Imperceptible	11.9	10.9	10.9	0.0	Imperceptible
P24	594336	224980	Planning Application	24.7	21.8	21.8	0.0	Imperceptible	17.1	15.9	15.9	0.0	Imperceptible	11.0	10.0	10.0	0.0	Imperceptible
R184	593295	224548	Residential	24.7	21.6	21.7	0.1	Imperceptible	18.7	17.4	17.4	0.0	Imperceptible	11.9	10.9	10.9	0.0	Imperceptible
R28	576496	210728	Residential	24.4	21.6	21.7	0.1	Imperceptible	19.5	18.3	18.4	0.1	Imperceptible	12.2	11.2	11.3	0.1	Imperceptible
P11	579582	212016	Planning Application	24.1	21.4	21.6	0.2	Imperceptible	18.4	17.2	17.2	0.0	Imperceptible	11.7	10.7	10.7	0.0	Imperceptible
P13	581421	213006	Planning Application	24.3	21.5	21.6	0.1	Imperceptible	17.7	16.5	16.5	0.0	Imperceptible	11.5	10.5	10.6	0.1	Imperceptible
R173	591958	223849	Residential	23.7	21.2	21.5	0.3	Imperceptible	20.1	19.0	19.0	0.0	Imperceptible	12.6	11.7	11.8	0.1	Imperceptible
R145	588513	220923	Residential	23.4	20.9	21.1	0.2	Imperceptible	18.9	17.7	17.8	0.1	Imperceptible	11.7	10.7	10.8	0.1	Imperceptible
R21	575930	210376	Residential	25.2	20.8	20.9	0.1	Imperceptible	19.6	18.0	18.0	0.0	Imperceptible	12.6	11.3	11.3	0.0	Imperceptible
R104	584831	217212	Residential	22.9	20.6	20.8	0.2	Imperceptible	18.4	17.2	17.2	0.0	Imperceptible	11.5	10.5	10.5	0.0	Imperceptible
R23	576093	210472	Residential	25.1	20.6	20.7	0.1	Imperceptible	19.9	18.3	18.3	0.0	Imperceptible	12.6	11.2	11.2	0.0	Imperceptible
R223	600655	229191	Residential	23.6	20.7	20.7	0.0	Imperceptible	18.7	17.5	17.5	0.0	Imperceptible	11.9	10.9	10.9	0.0	Imperceptible
R24	576156	210499	Residential	23.9	20.5	20.6	0.1	Imperceptible	19.6	18.2	18.2	0.0	Imperceptible	12.2	11.1	11.1	0.0	Imperceptible
R39	579434	211872	Residential	23.0	20.4	20.5	0.1	Imperceptible	17.2	16.0	16.0	0.0	Imperceptible	11.6	10.7	10.7	0.0	Imperceptible
R7	574882	204967	Residential	23.1	20.3	20.3	0.0	Imperceptible	18.6	17.3	17.3	0.0	Imperceptible	11.8	10.8	10.9	0.1	Imperceptible
R170	591484	223761	Residential	22.2	19.7	20.0	0.3	Imperceptible	19.9	18.7	18.8	0.1	Imperceptible	12.4	11.4	11.5	0.1	Imperceptible
R230	584809	217193	Residential	21.8	19.5	19.8	0.3	Imperceptible	18.2	17.0	17.1	0.1	Imperceptible	11.4	10.4	10.4	0.0	Imperceptible
R17	575125	209914	Residential	23.1	19.4	19.5	0.1	Imperceptible	18.0	16.5	16.5	0.0	Imperceptible	11.7	10.4	10.4	0.0	Imperceptible
R10	573989	207980	Residential	21.7	19.4	19.4	0.0	Imperceptible	17.0	15.8	15.8	0.0	Imperceptible	11.2	10.2	10.2	0.0	Imperceptible
R228	584559	217130	Residential	21.6	19.1	19.3	0.2	Imperceptible	18.2	17.0	17.0	0.0	Imperceptible	11.3	10.3	10.4	0.1	Imperceptible
R171	591842	223781	Residential	21.2	18.9	19.1	0.2	Imperceptible	19.6	18.4	18.5	0.1	Imperceptible	12.1	11.1	11.2	0.1	Imperceptible
P12	580660	212892	Planning Application	21.2	18.7	19.1	0.4	Imperceptible	19.5	18.3	18.4	0.1	Imperceptible	11.8	10.8	10.9	0.1	Imperceptible
P1	574545	205914	Planning Application	21.3	19.1	19.1	0.0	Imperceptible	21.1	19.8	19.8	0.0	Imperceptible	13.2	12.2	12.2	0.0	Imperceptible

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change
P18	592042	223826	Planning Application	21.3	18.9	19.0	0.1	Imperceptible	17.1	16.0	16.0	0.0	Imperceptible	11.0	10.1	10.1	0.0	Imperceptible
P5	575929	210322	Planning Application	22.1	18.9	19.0	0.1	Imperceptible	19.0	17.7	17.7	0.0	Imperceptible	12.1	11.0	11.0	0.0	Imperceptible
R146	588978	221190	Residential	20.9	18.8	18.9	0.1	Imperceptible	18.7	17.5	17.5	0.0	Imperceptible	11.2	10.2	10.3	0.1	Imperceptible
R57	581677	213072	Residential	21.2	18.6	18.7	0.1	Imperceptible	17.3	16.0	16.1	0.1	Imperceptible	11.1	10.1	10.1	0.0	Imperceptible
R6	574620	204613	Residential	21.6	18.7	18.7	0.0	Imperceptible	18.4	17.2	17.2	0.0	Imperceptible	11.7	10.7	10.7	0.0	Imperceptible
R33	578283	211420	Residential	21.3	18.6	18.7	0.1	Imperceptible	18.1	16.9	16.9	0.0	Imperceptible	11.5	10.5	10.6	0.1	Imperceptible
R20	575600	210197	Residential	21.7	18.4	18.5	0.1	Imperceptible	18.9	17.5	17.5	0.0	Imperceptible	12.0	10.8	10.8	0.0	Imperceptible
R111	585423	217743	Residential	20.6	17.9	18.2	0.3	Imperceptible	18.5	17.4	17.4	0.0	Imperceptible	11.6	10.6	10.7	0.1	Imperceptible
R172	591914	223798	Residential	20.2	17.9	18.1	0.2	Imperceptible	19.6	18.4	18.4	0.0	Imperceptible	12.1	11.1	11.2	0.1	Imperceptible
R56	581069	213004	School	20.3	17.8	17.9	0.1	Imperceptible	17.2	16.0	16.0	0.0	Imperceptible	11.0	10.0	10.1	0.1	Imperceptible
R139	587792	220291	Residential	20.0	17.5	17.8	0.3	Imperceptible	17.8	16.6	16.7	0.1	Imperceptible	11.2	10.2	10.3	0.1	Imperceptible
R18	575365	210056	Residential	21.0	17.8	17.8	0.0	Imperceptible	18.9	17.5	17.5	0.0	Imperceptible	11.9	10.8	10.8	0.0	Imperceptible
P21	591893	224074	Planning Application	19.9	17.5	17.6	0.1	Imperceptible	20.8	19.4	19.4	0.0	Imperceptible	12.7	11.6	11.7	0.1	Imperceptible
R3	572834	202395	Residential	19.7	17.4	17.4	0.0	Imperceptible	19.1	17.8	17.8	0.0	Imperceptible	12.1	11.0	11.0	0.0	Imperceptible
R36	578630	211781	Residential	20.1	17.4	17.4	0.0	Imperceptible	17.9	16.7	16.7	0.0	Imperceptible	11.3	10.3	10.3	0.0	Imperceptible
P22	592784	224260	Planning Application	19.9	17.3	17.4	0.1	Imperceptible	19.2	17.9	17.9	0.0	Imperceptible	11.7	10.7	10.7	0.0	Imperceptible
R229	584561	217152	Residential	19.4	17.1	17.3	0.2	Imperceptible	18.0	16.8	16.8	0.0	Imperceptible	11.1	10.1	10.1	0.0	Imperceptible
P15	585292	217704	Planning Application	19.5	17.0	17.2	0.2	Imperceptible	18.4	17.2	17.3	0.1	Imperceptible	11.4	10.5	10.5	0.0	Imperceptible
R131	587723	218871	Residential	19.3	17.0	17.1	0.1	Imperceptible	18.2	17.1	17.1	0.0	Imperceptible	11.3	10.4	10.4	0.0	Imperceptible
R4	573156	202584	Residential	19.1	16.9	16.9	0.0	Imperceptible	17.8	16.6	16.6	0.0	Imperceptible	11.0	10.0	10.0	0.0	Imperceptible
R160	591472	223399	Residential	18.4	16.2	16.4	0.2	Imperceptible	19.2	18.0	18.0	0.0	Imperceptible	11.7	10.7	10.8	0.1	Imperceptible
R55	580714	212953	Residential	18.5	16.2	16.3	0.1	Imperceptible	19.3	18.1	18.1	0.0	Imperceptible	11.6	10.7	10.7	0.0	Imperceptible
R50	579418	212154	Residential	18.3	16.0	16.1	0.1	Imperceptible	17.8	16.6	16.6	0.0	Imperceptible	11.0	10.0	10.1	0.1	Imperceptible
R53	580579	212848	Residential	18.0	15.7	15.8	0.1	Imperceptible	19.0	17.8	17.9	0.1	Imperceptible	11.4	10.4	10.5	0.1	Imperceptible

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change	Base 2019	DM 2025	DS 2025	DS-DM 2025	Magnitude of change
R112	586455	217798	Residential	17.9	15.5	15.5	0.0	Imperceptible	17.2	16.0	16.0	0.0	Imperceptible	10.7	9.7	9.7	0.0	Imperceptible
P9	578901	211961	Planning Application	17.7	15.4	15.5	0.1	Imperceptible	17.6	16.4	16.5	0.1	Imperceptible	11.1	10.1	10.1	0.0	Imperceptible
R2	570380	201725	Residential	17.4	15.3	15.3	0.0	Imperceptible	18.0	16.8	16.8	0.0	Imperceptible	11.0	10.1	10.1	0.0	Imperceptible
R51	580430	212737	Residential	17.2	15.0	15.1	0.1	Imperceptible	19.0	17.8	17.8	0.0	Imperceptible	11.3	10.3	10.4	0.1	Imperceptible
R1	571375	201642	Residential	16.6	14.6	14.6	0.0	Imperceptible	17.8	16.6	16.6	0.0	Imperceptible	10.8	9.9	9.9	0.0	Imperceptible
R118	586597	218153	Residential	16.1	13.9	14.0	0.1	Imperceptible	17.1	15.9	15.9	0.0	Imperceptible	10.6	9.6	9.6	0.0	Imperceptible
P17	587583	219706	Planning Application	15.2	13.2	13.2	0.0	Imperceptible	17.1	15.9	15.9	0.0	Imperceptible	10.6	9.6	9.6	0.0	Imperceptible
R153	590197	222042	Residential	14.8	12.8	12.8	0.0	Imperceptible	18.8	17.6	17.6	0.0	Imperceptible	11.0	10.1	10.1	0.0	Imperceptible

Ecological: Nutrient nitrogen deposition

1.2.2 Table 1.2 shows the modelled construction results for all ecological receptors found to have potentially significant effects as a result of nitrogen deposition from road-increment NO₂ and NH₃. The nitrogen deposition results from road NO₂ alone (i.e. excluding NH₃) are also presented. The receptor results are ordered by site and receptor ID.

Table 1.2 Modelled ecological nitrogen deposition results in the peak construction year (2025) for receptors where results were deemed to be potentially significant according to DMRB LA 105 criteria

Receptor ID	Designated site	Distance to nearest affected road ^a	Minimum critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	Estimated nutrient N deposition - without NH ₃ contribution			Estimated nutrient N deposition - with NH ₃ contribution		
					DM to DS change (kg N/ha/yr)	Change /CL (%)	Potentially significant?	DM to DS change (kg N/ha/yr)	Change/ CL (%)	Potentially significant?
ECO_TREE_39	T685 Elm (VV) ^b	7.7	10	32.9	0.16	1.6	No	0.69	6.9	Yes
ECO_TREE_37	T636 Oak (PV)	8.7	10	38.22	0.15	1.5	No	0.65	6.5	Yes
ECO_TREE_26	T439 Lime (PV)	32.3	10	29.96	0.20	2.0	No	0.85	8.5	Yes
ECO_TREE_27	T441 Lime (PV)	39.8	10	29.96	0.21	2.1	No	0.88	8.8	Yes
ECO_TREE_28	T443 Horse chestnut (PV)	44.7	10	29.96	0.24	2.4	No	1.04	10.4	Yes

Receptor ID	Designated site	Distance to nearest affected road ^a	Minimum critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	Estimated nutrient N deposition - without NH ₃ contribution			Estimated nutrient N deposition - with NH ₃ contribution		
					DM to DS change (kg N/ha/yr)	Change /CL (%)	Potentially significant?	DM to DS change (kg N/ha/yr)	Change/ CL (%)	Potentially significant?
ECO_TREE_54	T624 Ash (PA)	18.6	10	38.22	0.15	1.5	No	0.65	6.5	Yes

^a The range over which modelled receptors were found to have potentially significant effects. Distances are measured to the nearest road centreline in the ARN.

^b VV = verified veteran tree location, PV = potential veteran tree location, PA = potential ancient tree location

Compliance risk

1.2.3 Receptor results shown in Table 1.3 have been ordered according to the qualifying receptor ID.

Table 1.3 Modelled PCM compliance risk receptor results, representative of qualifying features, in the peak construction year (2025)

PCM road Census ID	Qualifying receptor ID	Grid reference		2025 annual mean modelled NO ₂ concentration (µg/m ³)			
		X	Y	PCM model	Qualifying receptors		
					DM	DS	DS – DM
802006208	PCM_10	596087	225310	24.8	30.1	30.2	0.1
802006208	PCM_11	596040	225293	24.8	30.2	30.3	0.1
802006208	PCM_12	595992	225278	24.8	30.8	30.9	0.1
802006208	PCM_13	595944	225266	24.8	30.9	31.1	0.2
802006208	PCM_30	595105	225131	24.8	29.7	29.9	0.2
802006208	PCM_33	594958	225099	24.8	24.5	24.6	0.1
802006208	PCM_52	595041	225162	24.8	34.1	34.3	0.2
802006208	PCM_71	595978	225317	24.8	31.6	31.7	0.1
802006208	PCM_72	596025	225332	24.8	30.3	30.5	0.2

1.3 Operational phase results

Human health

1.3.1 Receptor results shown in Table 1.4 have been ordered according to the highest annual mean NO₂ concentration predicted in the opening DS year.

Table 1.4 Modelled human health receptor results for NO₂, PM₁₀ and PM_{2.5} in the opening year (2027)

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change
R193	596019	225284	Residential	45.6	41.5	42.4	0.9	Small	21.5	20.3	20.4	0.1	Imperceptible	15.0	14.1	14.2	0.1	Imperceptible
R189	595059	225171	Residential	44.3	40.1	41.0	0.9	Small	20.7	19.4	19.5	0.1	Imperceptible	14.3	13.3	13.4	0.1	Imperceptible
R225	576860	210952	Residential	41.5	36.3	40.3	4.0	Medium	21.4	20.2	20.3	0.1	Imperceptible	14.1	13.0	13.2	0.2	Imperceptible
R191	595954	225263	Residential	42.6	38.7	39.4	0.7	Small	20.8	19.6	19.7	0.1	Imperceptible	14.4	13.5	13.6	0.1	Imperceptible
R194	596035	225286	Residential	41.5	37.7	38.4	0.7	Small	20.9	19.7	19.8	0.1	Imperceptible	14.5	13.5	13.6	0.1	Imperceptible
R187	595124	225129	Residential	40.1	36.2	37.0	0.8	Small	20.2	19.0	19.1	0.1	Imperceptible	13.9	12.9	13.0	0.1	Imperceptible
R30	576848	210942	Residential	38.0	33.1	36.6	3.5	Medium	21.0	19.8	19.9	0.1	Imperceptible	13.7	12.6	12.8	0.2	Imperceptible
R19	575251	210154	Residential	36.5	32.3	34.9	2.6	Medium	20.4	19.1	19.2	0.1	Imperceptible	13.4	12.4	12.5	0.1	Imperceptible
R164	591501	223574	Residential	34.8	30.8	34.7	3.9	Medium	21.1	19.8	20.4	0.6	Small	13.6	12.6	13.1	0.5	Small
R196	596063	225292	Residential	37.9	34.1	34.7	0.6	Small	20.4	19.2	19.3	0.1	Imperceptible	13.9	13.0	13.1	0.1	Imperceptible
R192	596004	225271	School	37.5	33.9	34.5	0.6	Small	20.4	19.2	19.3	0.1	Imperceptible	14.0	13.0	13.1	0.1	Imperceptible
R167	591542	223625	Residential	35.6	31.6	34.2	2.6	Medium	21.3	20.0	20.3	0.3	Imperceptible	13.8	12.7	13.0	0.3	Small
R26	576216	210638	Residential	35.7	30.9	34.0	3.1	Medium	20.6	19.3	19.4	0.1	Imperceptible	13.3	12.2	12.3	0.1	Imperceptible
R199	596003	225337	Residential	36.8	33.2	33.9	0.7	Small	20.3	19.1	19.2	0.1	Imperceptible	13.8	12.9	13.0	0.1	Imperceptible
R238	595048	225178	Residential	36.8	33.0	33.6	0.6	Small	19.7	18.4	18.5	0.1	Imperceptible	13.3	12.3	12.4	0.1	Imperceptible
R224	576770	210907	Residential	34.8	30.3	33.3	3.0	Medium	20.6	19.3	19.5	0.2	Imperceptible	13.2	12.2	12.3	0.1	Imperceptible
R40	579175	211897	Residential	33.8	29.5	33.0	3.5	Medium	18.0	16.7	17.0	0.3	Imperceptible	12.4	11.3	11.7	0.4	Small
R35	578741	211745	Residential	34.2	29.3	32.5	3.2	Medium	19.5	18.2	18.4	0.2	Imperceptible	12.9	11.8	12.1	0.3	Small
R214	596335	225466	Residential	35.9	31.9	32.4	0.5	Small	20.1	18.8	18.9	0.1	Imperceptible	13.6	12.6	12.7	0.1	Imperceptible
R240	595139	225127	Residential	35.3	31.8	32.4	0.6	Small	19.6	18.4	18.5	0.1	Imperceptible	13.3	12.3	12.4	0.1	Imperceptible
R239	595093	225186	Residential	34.9	31.4	32.0	0.6	Small	19.5	18.3	18.4	0.1	Imperceptible	13.2	12.2	12.3	0.1	Imperceptible

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change
R201	596200	225355	Residential	34.9	31.0	31.5	0.5	Small	19.9	18.7	18.8	0.1	Imperceptible	13.5	12.5	12.6	0.1	Imperceptible
R186	594969	225095	Residential	34.0	30.5	31.1	0.6	Small	20.1	18.9	19.0	0.1	Imperceptible	13.3	12.3	12.4	0.1	Imperceptible
R210	596299	225429	Residential	34.4	30.6	31.1	0.5	Small	19.9	18.7	18.7	0.0	Imperceptible	13.4	12.5	12.5	0.0	Imperceptible
R25	576003	210512	Residential	32.8	28.3	30.9	2.6	Medium	20.3	18.9	19.1	0.2	Imperceptible	12.9	11.8	12.0	0.2	Imperceptible
R237	595040	225182	Residential	33.9	30.3	30.9	0.6	Small	19.3	18.1	18.1	0.0	Imperceptible	13.0	12.0	12.0	0.0	Imperceptible
R62	582391	213337	Residential	31.7	27.8	30.6	2.8	Medium	19.9	18.7	19.0	0.3	Imperceptible	13.2	12.2	12.5	0.3	Small
R22	575809	210407	Residential	32.4	27.9	30.5	2.6	Medium	19.8	18.5	18.6	0.1	Imperceptible	12.9	11.8	11.9	0.1	Imperceptible
R31	576927	210957	Residential	32.0	28.1	30.4	2.3	Medium	20.5	19.4	19.6	0.2	Imperceptible	13.2	12.3	12.4	0.1	Imperceptible
R202	596224	225368	Residential	33.6	29.8	30.3	0.5	Small	19.8	18.6	18.6	0.0	Imperceptible	13.3	12.4	12.4	0.0	Imperceptible
R34	578861	211738	Residential	31.0	27.0	30.1	3.1	Medium	19.2	17.9	18.2	0.3	Imperceptible	12.6	11.6	11.8	0.2	Imperceptible
R207	596274	225405	Residential	33.4	29.6	30.1	0.5	Small	19.8	18.5	18.6	0.1	Imperceptible	13.3	12.3	12.4	0.1	Imperceptible
R200	596197	225350	Residential	33.4	29.6	30.1	0.5	Small	19.8	18.5	18.6	0.1	Imperceptible	13.3	12.3	12.4	0.1	Imperceptible
R188	594927	225171	Residential	33.0	29.5	30.1	0.6	Small	19.9	18.7	18.8	0.1	Imperceptible	13.1	12.1	12.2	0.1	Imperceptible
R169	591620	223700	Residential	31.8	28.2	30.0	1.8	Small	20.9	19.6	19.8	0.2	Imperceptible	13.4	12.4	12.5	0.1	Imperceptible
R209	596285	225414	Residential	33.3	29.5	30.0	0.5	Small	19.7	18.5	18.6	0.1	Imperceptible	13.3	12.3	12.4	0.1	Imperceptible
R203	596231	225372	Residential	33.2	29.4	30.0	0.6	Small	19.7	18.5	18.6	0.1	Imperceptible	13.3	12.3	12.4	0.1	Imperceptible
R211	596307	225433	Residential	33.2	29.4	29.9	0.5	Small	19.7	18.5	18.6	0.1	Imperceptible	13.3	12.3	12.4	0.1	Imperceptible
R59	582292	213254	Residential	30.4	26.4	29.8	3.4	Medium	19.5	18.2	18.5	0.3	Imperceptible	12.8	11.7	12.1	0.4	Small
R208	596280	225409	Residential	33.1	29.3	29.8	0.5	Small	19.7	18.5	18.6	0.1	Imperceptible	13.2	12.3	12.3	0.0	Imperceptible
R41	579039	211908	Residential	30.5	26.3	29.7	3.4	Medium	17.6	16.3	16.6	0.3	Imperceptible	12.0	11.0	11.3	0.3	Small
R198	596154	225324	Residential	32.9	29.2	29.7	0.5	Small	19.7	18.5	18.6	0.1	Imperceptible	13.3	12.3	12.4	0.1	Imperceptible
P8	578785	211775	Planning Application	30.4	26.2	29.5	3.3	Medium	19.1	17.8	18.1	0.3	Imperceptible	12.5	11.4	11.7	0.3	Small
R216	596364	225487	Residential	32.7	28.9	29.4	0.5	Small	19.7	18.4	18.5	0.1	Imperceptible	13.2	12.2	12.3	0.1	Imperceptible
P4a	575128	210093	Planning Application	31.3	27.5	29.4	1.9	Small	19.7	18.4	18.5	0.1	Imperceptible	12.8	11.7	11.8	0.1	Imperceptible

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change
R218	596375	225498	Residential	32.6	28.8	29.3	0.5	Small	19.6	18.4	18.5	0.1	Imperceptible	13.2	12.2	12.3	0.1	Imperceptible
R8	572622	207663	Residential	33.2	28.9	29.2	0.3	Imperceptible	18.9	17.8	17.9	0.1	Imperceptible	13.7	12.9	13.0	0.1	Imperceptible
R215	596355	225477	Residential	32.5	28.7	29.2	0.5	Small	19.6	18.4	18.5	0.1	Imperceptible	13.2	12.2	12.3	0.1	Imperceptible
R195b	596022	225266	Residential	32.0	28.7	29.1	0.4	Imperceptible	19.7	18.5	18.6	0.1	Imperceptible	13.3	12.3	12.4	0.1	Imperceptible
R241	595148	225123	Residential	32.0	28.6	29.1	0.5	Small	19.2	18.0	18.0	0.0	Imperceptible	12.8	11.9	11.9	0.0	Imperceptible
R205	596264	225392	Residential	31.6	27.9	28.4	0.5	Small	19.5	18.3	18.4	0.1	Imperceptible	13.1	12.1	12.2	0.1	Imperceptible
R60	582419	213266	Residential	29.3	25.5	28.2	2.7	Medium	19.4	18.2	18.4	0.2	Imperceptible	12.7	11.7	11.9	0.2	Imperceptible
R197	596114	225300	Residential	31.3	27.7	28.2	0.5	Small	19.5	18.3	18.4	0.1	Imperceptible	13.1	12.1	12.2	0.1	Imperceptible
R235	594900	225171	Residential	30.9	27.6	28.0	0.4	Imperceptible	19.7	18.4	18.5	0.1	Imperceptible	12.8	11.9	11.9	0.0	Imperceptible
R45	579452	211974	Residential	27.4	24.3	27.9	3.6	Medium	17.4	16.3	17.3	1.0	Small	11.9	10.9	11.9	1.0	Small
R190	594743	225176	Residential	30.4	27.1	27.7	0.6	Small	19.9	18.8	18.9	0.1	Imperceptible	13.1	12.2	12.3	0.1	Imperceptible
R222	598918	228906	Hospital	32.2	27.4	27.7	0.3	Imperceptible	19.8	18.6	18.6	0.0	Imperceptible	12.9	11.9	11.9	0.0	Imperceptible
R168	591372	223677	Residential	28.8	25.0	27.5	2.5	Medium	21.2	20.0	20.3	0.3	Imperceptible	13.7	12.7	13.0	0.3	Small
R44	579427	211956	Residential	27.6	24.3	27.5	3.2	Medium	17.5	16.4	17.1	0.7	Small	11.9	11.0	11.8	0.8	Small
R234	594881	225171	Residential	30.3	27.1	27.5	0.4	Imperceptible	19.6	18.4	18.4	0.0	Imperceptible	12.8	11.8	11.9	0.1	Imperceptible
R236	595027	225190	Residential	30.4	27.0	27.4	0.4	Imperceptible	18.9	17.7	17.7	0.0	Imperceptible	12.6	11.6	11.6	0.0	Imperceptible
R217	596382	225497	Residential	30.4	26.8	27.2	0.4	Imperceptible	19.4	18.2	18.2	0.0	Imperceptible	12.9	11.9	12.0	0.1	Imperceptible
R213	596334	225447	Residential	30.0	26.4	26.8	0.4	Imperceptible	19.3	18.1	18.2	0.1	Imperceptible	12.9	11.9	12.0	0.1	Imperceptible
R14	574255	209448	Residential	29.1	26.6	26.7	0.1	Imperceptible	20.2	19.0	19.1	0.1	Imperceptible	13.0	12.2	12.2	0.0	Imperceptible
R195	596104	225290	Residential	29.4	26.0	26.4	0.4	Imperceptible	19.3	18.1	18.2	0.1	Imperceptible	12.9	11.9	12.0	0.1	Imperceptible
R133	587587	218975	Residential	29.2	25.3	26.3	1.0	Small	19.4	18.3	18.2	-0.1	Imperceptible	12.5	11.6	11.4	-0.2	Imperceptible
R38	579092	211841	Residential	28.1	24.4	26.3	1.9	Small	17.4	16.1	16.3	0.2	Imperceptible	11.8	10.8	10.9	0.1	Imperceptible
R233	594819	225172	Residential	28.8	25.6	26.1	0.5	Small	19.5	18.3	18.3	0.0	Imperceptible	12.7	11.7	11.8	0.1	Imperceptible
R212	596324	225434	Residential	29.1	25.6	26.0	0.4	Imperceptible	19.2	18.0	18.1	0.1	Imperceptible	12.8	11.8	11.8	0.0	Imperceptible
R48	579515	212011	Residential	28.8	25.4	25.8	0.4	Imperceptible	19.0	17.8	17.9	0.1	Imperceptible	12.3	11.3	11.3	0.0	Imperceptible

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change
R162	590456	223499	Residential	29.9	25.6	25.8	0.2	Imperceptible	20.1	18.9	18.9	0.0	Imperceptible	13.5	12.4	12.5	0.1	Imperceptible
R232	594801	225173	Residential	28.4	25.2	25.6	0.4	Imperceptible	19.5	18.2	18.3	0.1	Imperceptible	12.6	11.7	11.7	0.0	Imperceptible
R231	594796	225173	Residential	28.3	25.1	25.5	0.4	Imperceptible	19.5	18.2	18.3	0.1	Imperceptible	12.6	11.7	11.7	0.0	Imperceptible
R67	582717	213627	Residential	26.6	23.0	25.4	2.4	Medium	19.0	17.7	18.0	0.3	Imperceptible	12.3	11.2	11.5	0.3	Small
R165	591059	223597	Residential	29.6	25.3	25.1	-0.2	Imperceptible	21.5	20.2	20.3	0.1	Imperceptible	14.0	13.0	13.0	0.0	Imperceptible
R178	591959	223905	Residential	27.0	23.7	25.0	1.3	Small	20.3	19.1	19.3	0.2	Imperceptible	12.8	11.8	12.0	0.2	Imperceptible
R204	596065	225385	Residential	27.8	24.5	24.9	0.4	Imperceptible	19.1	17.9	17.9	0.0	Imperceptible	12.6	11.7	11.7	0.0	Imperceptible
R27	576146	210694	Residential	27.3	23.2	24.8	1.6	Small	19.7	18.3	18.4	0.1	Imperceptible	12.3	11.2	11.3	0.1	Imperceptible
R43	579432	211922	Residential	26.1	22.9	24.6	1.7	Small	17.5	16.4	16.7	0.3	Imperceptible	12.0	11.1	11.4	0.3	Small
R42	579404	211913	Residential	27.8	24.5	24.6	0.1	Imperceptible	17.9	16.8	16.6	-0.2	Imperceptible	12.3	11.5	11.3	-0.2	Imperceptible
R221	598578	228812	Residential	28.3	24.1	24.3	0.2	Imperceptible	19.4	18.2	18.2	0.0	Imperceptible	12.5	11.5	11.5	0.0	Imperceptible
R166	591066	223620	Residential	28.5	24.9	24.2	-0.7	Small	21.3	20.1	20.1	0.0	Imperceptible	13.8	12.9	12.8	-0.1	Imperceptible
R185	594770	225036	Residential	26.6	23.5	23.9	0.4	Imperceptible	19.5	18.4	18.4	0.0	Imperceptible	12.7	11.8	11.8	0.0	Imperceptible
R32	577702	211250	Residential	25.1	21.6	23.5	1.9	Small	18.5	17.4	17.5	0.1	Imperceptible	12.0	11.0	11.2	0.2	Imperceptible
P10	579382	211905	Planning Application	27.4	24.1	23.3	-0.8	Small	17.8	16.7	16.3	-0.4	Imperceptible	12.2	11.4	11.0	-0.4	Small
R176	591948	223881	Residential	25.4	22.3	23.2	0.9	Small	20.2	19.0	19.2	0.2	Imperceptible	12.7	11.7	11.9	0.2	Imperceptible
R163	590569	223526	Residential	26.9	23.2	23.2	0.0	Imperceptible	19.5	18.3	18.3	0.0	Imperceptible	12.9	11.9	11.9	0.0	Imperceptible
R64	582592	213517	Residential	24.7	21.2	23.1	1.9	Small	18.8	17.5	17.7	0.2	Imperceptible	12.1	11.1	11.2	0.1	Imperceptible
P13	581421	213006	Planning Application	24.3	21.0	23.0	2.0	Small	17.7	16.5	16.7	0.2	Imperceptible	11.5	10.5	10.7	0.2	Imperceptible
P23	594161	224936	Planning Application	25.6	22.1	22.7	0.6	Small	17.2	16.0	16.1	0.1	Imperceptible	11.1	10.1	10.2	0.1	Imperceptible
R54	581417	212894	Residential	24.5	21.2	22.6	1.4	Small	19.3	18.1	18.2	0.1	Imperceptible	11.9	10.9	10.9	0.0	Imperceptible
R161	591334	223453	Residential	32.6	29.0	22.5	-6.5	Large	20.9	19.7	18.7	-1.0	Small	13.4	12.4	11.5	-0.9	Small
R89	584060	216281	Residential	22.0	19.3	22.5	3.2	Medium	18.4	17.3	17.4	0.1	Imperceptible	11.6	10.7	10.9	0.2	Imperceptible
R73	582451	214949	Residential	25.2	21.6	22.5	0.9	Small	19.0	17.7	18.0	0.3	Imperceptible	13.0	11.9	12.2	0.3	Small

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change
R28	576496	210728	Residential	24.4	21.1	22.4	1.3	Small	19.5	18.4	18.5	0.1	Imperceptible	12.2	11.2	11.4	0.2	Imperceptible
R13	574309	209415	Residential	25.6	22.0	22.3	0.3	Imperceptible	19.9	18.5	18.6	0.1	Imperceptible	12.8	11.6	11.7	0.1	Imperceptible
R103	584681	217139	Residential	40.4	35.8	22.2	-13.6	Large	20.5	19.2	17.1	-2.1	Medium	13.7	12.6	10.4	-2.2	Large
R47	579559	212010	Residential	24.6	21.4	22.1	0.7	Small	18.5	17.3	17.4	0.1	Imperceptible	11.7	10.7	10.9	0.2	Imperceptible
R184	593295	224548	Residential	24.7	21.2	22.0	0.8	Small	18.7	17.4	17.5	0.1	Imperceptible	11.9	10.9	11.0	0.1	Imperceptible
R71	582458	214926	Residential	24.6	21.0	21.8	0.8	Small	18.9	17.5	17.8	0.3	Imperceptible	12.8	11.8	12.0	0.2	Imperceptible
R21	575930	210376	Residential	25.2	20.5	21.8	1.3	Small	19.6	18.0	18.2	0.2	Imperceptible	12.6	11.3	11.5	0.2	Imperceptible
P24	594336	224980	Planning Application	24.7	21.3	21.8	0.5	Small	17.1	15.9	16.0	0.1	Imperceptible	11.0	10.1	10.1	0.0	Imperceptible
R173	591958	223849	Residential	23.7	20.8	21.7	0.9	Small	20.1	19.0	19.2	0.2	Imperceptible	12.6	11.7	11.9	0.2	Imperceptible
R46	579505	211978	Residential	24.0	21.1	21.7	0.6	Small	17.0	15.8	15.9	0.1	Imperceptible	11.4	10.5	10.5	0.0	Imperceptible
R23	576093	210472	Residential	25.1	20.4	21.7	1.3	Small	19.9	18.3	18.6	0.3	Imperceptible	12.6	11.2	11.5	0.3	Small
P11	579582	212016	Planning Application	24.1	20.9	21.6	0.7	Small	18.4	17.2	17.3	0.1	Imperceptible	11.7	10.7	10.8	0.1	Imperceptible
R91	584076	216300	Residential	17.6	15.1	21.5	6.4	Large	17.7	16.5	17.5	1.0	Small	10.9	10.0	10.9	0.9	Small
R76	582047	215077	Residential	23.9	20.6	21.2	0.6	Small	17.2	16.0	16.2	0.2	Imperceptible	11.5	10.6	10.7	0.1	Imperceptible
R24	576156	210499	Residential	23.9	20.1	21.1	1.0	Small	19.6	18.2	18.4	0.2	Imperceptible	12.2	11.1	11.2	0.1	Imperceptible
R12	573306	208902	Residential	25.2	21.0	21.1	0.1	Imperceptible	18.0	16.5	16.6	0.1	Imperceptible	12.1	10.9	11.0	0.1	Imperceptible
P12	580660	212892	Planning Application	21.2	18.3	21.1	2.8	Medium	19.5	18.3	19.4	1.1	Small	11.8	10.9	11.9	1.0	Small
R39	579434	211872	Residential	23.0	20.0	21.0	1.0	Small	17.2	16.0	16.2	0.2	Imperceptible	11.6	10.7	10.8	0.1	Imperceptible
R9	572610	207846	Residential	24.1	20.6	20.8	0.2	Imperceptible	17.0	15.8	15.8	0.0	Imperceptible	11.8	10.9	10.9	0.0	Imperceptible
R11	572705	208081	Residential	24.2	20.7	20.8	0.1	Imperceptible	17.2	16.0	16.0	0.0	Imperceptible	12.1	11.1	11.1	0.0	Imperceptible
P14	582605	215138	Planning Application	22.9	19.7	20.8	1.1	Small	17.1	15.9	16.2	0.3	Imperceptible	11.4	10.5	10.8	0.3	Small
R37	579501	211807	Residential	22.8	19.8	20.7	0.9	Small	17.3	16.2	16.3	0.1	Imperceptible	11.7	10.9	11.0	0.1	Imperceptible
R170	591484	223761	Residential	22.2	19.3	20.5	1.2	Small	19.9	18.7	18.9	0.2	Imperceptible	12.4	11.5	11.6	0.1	Imperceptible

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change
R223	600655	229191	Residential	23.6	20.3	20.4	0.1	Imperceptible	18.7	17.5	17.5	0.0	Imperceptible	11.9	10.9	10.9	0.0	Imperceptible
R7	574882	204967	Residential	23.1	19.9	19.9	0.0	Imperceptible	18.6	17.3	17.4	0.1	Imperceptible	11.8	10.9	10.9	0.0	Imperceptible
R86	583347	216014	Residential	30.0	25.7	19.8	-5.9	Large	18.7	17.5	16.8	-0.7	Small	12.3	11.3	10.6	-0.7	Small
R227	584070	216609	Residential	38.6	34.1	19.8	-14.3	Large	20.1	18.8	16.8	-2.0	Small	13.3	12.3	10.3	-2.0	Medium
R17	575125	209914	Residential	23.1	19.1	19.7	0.6	Small	18.0	16.5	16.6	0.1	Imperceptible	11.7	10.4	10.6	0.2	Imperceptible
P5	575929	210322	Planning Application	22.1	18.6	19.4	0.8	Small	19.0	17.7	17.8	0.1	Imperceptible	12.1	11.0	11.1	0.1	Imperceptible
R96	584087	216605	Residential	30.0	26.2	19.3	-6.9	Large	19.0	17.8	16.8	-1.0	Small	12.2	11.2	10.2	-1.0	Small
R57	581677	213072	Residential	21.2	18.2	19.3	1.1	Small	17.3	16.1	16.2	0.1	Imperceptible	11.1	10.1	10.2	0.1	Imperceptible
R171	591842	223781	Residential	21.2	18.5	19.2	0.7	Small	19.6	18.4	18.5	0.1	Imperceptible	12.1	11.1	11.2	0.1	Imperceptible
R206	597150	225403	Residential	22.2	19.0	19.2	0.2	Imperceptible	17.0	15.8	15.8	0.0	Imperceptible	11.5	10.5	10.6	0.1	Imperceptible
R95	583964	216584	Residential	32.0	28.0	19.1	-8.9	Large	19.0	17.7	16.6	-1.1	Small	12.6	11.5	10.4	-1.1	Medium
P18	592042	223826	Planning Application	21.3	18.5	19.1	0.6	Small	17.1	16.0	16.1	0.1	Imperceptible	11.0	10.1	10.3	0.2	Imperceptible
R63	581207	213429	Residential	22.3	19.1	19.1	0.0	Imperceptible	17.9	16.7	16.7	0.0	Imperceptible	11.7	10.8	10.7	-0.1	Imperceptible
R33	578283	211420	Residential	21.3	18.2	19.1	0.9	Small	18.1	16.9	16.9	0.0	Imperceptible	11.5	10.5	10.6	0.1	Imperceptible
R20	575600	210197	Residential	21.7	18.1	19.0	0.9	Small	18.9	17.5	17.6	0.1	Imperceptible	12.0	10.8	10.9	0.1	Imperceptible
R10	573989	207980	Residential	21.7	18.9	19.0	0.1	Imperceptible	17.0	15.8	15.8	0.0	Imperceptible	11.2	10.2	10.3	0.1	Imperceptible
R111	585423	217743	Residential	20.6	17.6	18.7	1.1	Small	18.5	17.4	17.4	0.0	Imperceptible	11.6	10.6	10.6	0.0	Imperceptible
P1	574545	205914	Planning Application	21.3	18.6	18.7	0.1	Imperceptible	21.1	19.8	19.8	0.0	Imperceptible	13.2	12.2	12.2	0.0	Imperceptible
R29	576119	210889	Residential	24.0	18.7	18.6	-0.1	Imperceptible	19.7	18.0	17.9	-0.1	Imperceptible	12.3	10.9	10.8	-0.1	Imperceptible
R87	583308	216064	Residential	29.2	25.3	18.5	-6.8	Large	18.7	17.4	16.6	-0.8	Small	12.3	11.2	10.4	-0.8	Small
R6	574620	204613	Residential	21.6	18.3	18.4	0.1	Imperceptible	18.4	17.2	17.2	0.0	Imperceptible	11.7	10.7	10.7	0.0	Imperceptible
R155	590943	222392	Residential	13.1	11.0	18.3	7.3	Large	18.6	17.4	18.6	1.2	Small	10.9	9.9	11.1	1.2	Medium
R144	588585	220886	Residential	28.4	24.9	18.2	-6.7	Large	19.5	18.3	17.3	-1.0	Small	12.3	11.3	10.3	-1.0	Small
R93	583855	216504	Residential	33.4	29.4	18.2	-11.2	Large	19.2	18.0	16.4	-1.6	Small	12.8	11.8	10.2	-1.6	Medium

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change
R18	575365	210056	Residential	21.0	17.4	18.2	0.8	Small	18.9	17.5	17.6	0.1	Imperceptible	11.9	10.8	10.9	0.1	Imperceptible
R175	592272	223873	Residential	20.2	17.6	18.2	0.6	Small	17.0	15.9	16.1	0.2	Imperceptible	11.0	10.1	10.2	0.1	Imperceptible
R56	581069	213004	School	20.3	17.4	18.2	0.8	Small	17.2	16.0	16.1	0.1	Imperceptible	11.0	10.1	10.1	0.0	Imperceptible
R172	591914	223798	Residential	20.2	17.5	18.1	0.6	Small	19.6	18.4	18.5	0.1	Imperceptible	12.1	11.1	11.2	0.1	Imperceptible
R160	591472	223399	Residential	18.4	15.9	18.1	2.2	Medium	19.2	18.0	18.3	0.3	Imperceptible	11.7	10.8	11.1	0.3	Small
R159	591224	223340	Residential	30.7	26.8	18.1	-8.7	Large	20.7	19.4	18.1	-1.3	Small	13.2	12.2	10.8	-1.4	Medium
R75	582288	215048	Residential	20.4	17.5	18.1	0.6	Small	16.7	15.5	15.7	0.2	Imperceptible	11.0	10.0	10.2	0.2	Imperceptible
R136	587162	219619	Residential	21.2	18.8	18.1	-0.7	Small	18.3	17.3	17.1	-0.2	Imperceptible	11.8	11.0	10.8	-0.2	Imperceptible
P15	585292	217704	Planning Application	19.5	16.6	18.1	1.5	Small	18.4	17.2	17.4	0.2	Imperceptible	11.4	10.5	10.7	0.2	Imperceptible
R131	587723	218871	Residential	19.3	16.7	17.9	1.2	Small	18.2	17.1	17.2	0.1	Imperceptible	11.3	10.4	10.5	0.1	Imperceptible
R174	592243	223854	Residential	20.0	17.4	17.9	0.5	Small	17.0	15.9	16.0	0.1	Imperceptible	10.9	10.0	10.1	0.1	Imperceptible
R226	583827	216475	Residential	34.8	30.9	17.9	-13.0	Large	19.4	18.1	16.4	-1.7	Small	12.9	11.9	10.2	-1.7	Medium
R104	584831	217212	Residential	22.9	20.2	17.8	-2.4	Medium	18.4	17.2	16.7	-0.5	Small	11.5	10.5	10.1	-0.4	Small
R153	590197	222042	Residential	14.8	12.5	17.7	5.2	Large	18.8	17.6	18.4	0.8	Small	11.0	10.1	10.9	0.8	Small
R141	588028	220400	Residential	30.4	26.7	17.7	-9.0	Large	19.7	18.4	17.2	-1.2	Small	12.4	11.5	10.2	-1.3	Medium
P21	591893	224074	Planning Application	19.9	17.2	17.7	0.5	Small	20.8	19.4	19.5	0.1	Imperceptible	12.7	11.6	11.7	0.1	Imperceptible
R127	586108	218730	Residential	20.8	18.3	17.6	-0.7	Small	18.2	17.1	16.9	-0.2	Imperceptible	11.6	10.8	10.6	-0.2	Imperceptible
R132	586225	218929	Residential	20.9	18.3	17.6	-0.7	Small	18.2	17.1	16.9	-0.2	Imperceptible	11.7	10.8	10.6	-0.2	Imperceptible
R66	581338	213538	Residential	20.6	17.6	17.6	0.0	Imperceptible	17.6	16.4	16.3	-0.1	Imperceptible	11.4	10.4	10.4	0.0	Imperceptible
P22	592784	224260	Planning Application	19.9	17.0	17.6	0.6	Small	19.2	17.9	18.0	0.1	Imperceptible	11.7	10.7	10.8	0.1	Imperceptible
R146	588978	221190	Residential	20.9	18.3	17.5	-0.8	Small	18.7	17.5	17.3	-0.2	Imperceptible	11.2	10.2	10.0	-0.2	Imperceptible
R78	582642	215209	Residential	19.9	16.9	17.5	0.6	Small	16.5	15.4	15.5	0.1	Imperceptible	10.8	9.9	10.0	0.1	Imperceptible
R50	579418	212154	Residential	18.3	15.7	17.4	1.7	Small	17.8	16.6	17.0	0.4	Imperceptible	11.0	10.1	10.5	0.4	Small
R36	578630	211781	Residential	20.1	17.0	17.3	0.3	Imperceptible	17.9	16.7	16.7	0.0	Imperceptible	11.3	10.3	10.3	0.0	Imperceptible

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change
R15	574502	209551	Residential	20.0	16.9	17.1	0.2	Imperceptible	19.1	17.8	17.8	0.0	Imperceptible	12.0	10.9	11.0	0.1	Imperceptible
R134	586362	219102	Residential	20.3	18.0	17.1	-0.9	Small	16.9	15.9	15.6	-0.3	Imperceptible	11.1	10.3	10.1	-0.2	Imperceptible
R152	594677	222001	Residential	20.0	17.3	17.0	-0.3	Imperceptible	16.9	15.6	15.5	-0.1	Imperceptible	10.7	9.6	9.5	-0.1	Imperceptible
R157	590764	222848	Residential	33.1	27.7	16.9	-10.8	Large	20.8	19.5	18.0	-1.5	Small	13.0	12.0	10.5	-1.5	Medium
R128	587833	218731	Residential	19.0	16.7	16.9	0.2	Imperceptible	18.3	17.3	17.2	-0.1	Imperceptible	11.4	10.6	10.5	-0.1	Imperceptible
R112	586455	217798	Residential	17.9	15.1	16.9	1.8	Small	17.2	16.0	16.2	0.2	Imperceptible	10.7	9.7	9.9	0.2	Imperceptible
P3	573961	209795	Planning Application	18.6	16.9	16.9	0.0	Imperceptible	17.2	16.2	16.2	0.0	Imperceptible	10.9	10.1	10.1	0.0	Imperceptible
R219	597018	225523	Residential	19.4	16.6	16.8	0.2	Imperceptible	16.3	15.1	15.1	0.0	Imperceptible	10.8	9.8	9.8	0.0	Imperceptible
R58	580867	213089	Residential	19.0	16.6	16.8	0.2	Imperceptible	18.4	17.3	17.3	0.0	Imperceptible	11.2	10.3	10.3	0.0	Imperceptible
R65	581288	213536	Residential	19.6	16.7	16.8	0.1	Imperceptible	17.4	16.2	16.2	0.0	Imperceptible	11.2	10.2	10.2	0.0	Imperceptible
R183	594557	224509	Residential	18.8	16.2	16.7	0.5	Small	16.7	15.6	15.7	0.1	Imperceptible	10.6	9.7	9.9	0.2	Imperceptible
R220	597753	225550	Residential	19.5	16.6	16.7	0.1	Imperceptible	16.6	15.4	15.4	0.0	Imperceptible	11.1	10.1	10.1	0.0	Imperceptible
R230	584809	217193	Residential	21.8	19.1	16.7	-2.4	Medium	18.2	17.0	16.6	-0.4	Imperceptible	11.4	10.4	10.0	-0.4	Small
R156	590617	222601	Residential	29.8	25.0	16.6	-8.4	Large	20.4	19.1	17.9	-1.2	Small	12.6	11.6	10.4	-1.2	Medium
P19	592579	223889	Planning Application	18.3	15.8	16.5	0.7	Small	16.8	15.6	15.8	0.2	Imperceptible	10.7	9.8	10.0	0.2	Imperceptible
R158	591008	223133	Residential	32.7	28.1	16.4	-11.7	Large	20.9	19.6	17.8	-1.8	Small	13.4	12.3	10.6	-1.7	Medium
R55	580714	212953	Residential	18.5	15.8	16.4	0.6	Small	19.3	18.1	18.2	0.1	Imperceptible	11.6	10.7	10.8	0.1	Imperceptible
P25	595499	225424	Planning Application	18.8	16.2	16.4	0.2	Imperceptible	17.7	16.5	16.5	0.0	Imperceptible	11.4	10.4	10.4	0.0	Imperceptible
R123	585976	218519	Residential	19.3	16.9	16.4	-0.5	Small	17.2	16.2	16.0	-0.2	Imperceptible	11.0	10.2	10.0	-0.2	Imperceptible
R126	586063	218686	Residential	19.3	16.9	16.4	-0.5	Small	17.9	16.8	16.7	-0.1	Imperceptible	11.4	10.5	10.4	-0.1	Imperceptible
R177	592658	223887	Residential	18.2	15.8	16.4	0.6	Small	16.8	15.7	15.8	0.1	Imperceptible	10.7	9.8	10.0	0.2	Imperceptible
R53	580579	212848	Residential	18.0	15.4	16.3	0.9	Small	19.0	17.9	18.2	0.3	Imperceptible	11.4	10.4	10.7	0.3	Small
R140	587940	220304	Residential	25.1	21.8	16.0	-5.8	Large	18.3	17.1	16.3	-0.8	Small	11.7	10.7	9.8	-0.9	Small

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change
P2	572591	208085	Planning Application	18.8	15.9	16.0	0.1	Imperceptible	16.2	14.9	14.9	0.0	Imperceptible	11.0	10.1	10.1	0.0	Imperceptible
R81	588704	215287	Residential	18.7	16.6	16.0	-0.6	Small	16.2	15.1	15.0	-0.1	Imperceptible	10.6	9.7	9.6	-0.1	Imperceptible
R135	586591	219257	Residential	18.9	16.8	15.9	-0.9	Small	16.7	15.7	15.4	-0.3	Imperceptible	11.0	10.2	9.9	-0.3	Small
R51	580430	212737	Residential	17.2	14.6	15.8	1.2	Small	19.0	17.8	18.0	0.2	Imperceptible	11.3	10.3	10.6	0.3	Small
P9	578901	211961	Planning Application	17.7	15.1	15.8	0.7	Small	17.6	16.5	16.5	0.0	Imperceptible	11.1	10.1	10.2	0.1	Imperceptible
R182	594438	224490	Residential	18.0	15.5	15.8	0.3	Imperceptible	16.6	15.5	15.6	0.1	Imperceptible	10.5	9.6	9.7	0.1	Imperceptible
R145	588513	220923	Residential	23.4	20.4	15.7	-4.7	Large	18.9	17.7	17.0	-0.7	Small	11.7	10.7	10.0	-0.7	Small
R122	587890	218518	Residential	16.7	14.4	15.7	1.3	Small	17.9	16.9	17.2	0.3	Imperceptible	11.0	10.1	10.5	0.4	Small
R102	588840	217115	Residential	16.3	14.6	15.6	1.0	Small	16.7	15.8	16.1	0.3	Imperceptible	10.5	9.8	10.1	0.3	Small
R180	593535	224183	Residential	16.9	14.9	15.6	0.7	Small	18.1	17.1	17.3	0.2	Imperceptible	11.3	10.5	10.7	0.2	Imperceptible
R16	574730	209638	Residential	18.2	15.4	15.5	0.1	Imperceptible	18.8	17.5	17.6	0.1	Imperceptible	11.7	10.6	10.7	0.1	Imperceptible
R82	588778	215332	Residential	18.1	16.1	15.5	-0.6	Small	16.1	15.0	14.9	-0.1	Imperceptible	10.5	9.6	9.5	-0.1	Imperceptible
R99	589244	216756	Residential	17.1	14.9	15.4	0.5	Small	15.4	14.3	14.5	0.2	Imperceptible	10.4	9.6	9.7	0.1	Imperceptible
R151	594606	221770	Residential	17.8	15.8	15.2	-0.6	Small	17.0	15.9	15.8	-0.1	Imperceptible	10.7	9.9	9.7	-0.2	Imperceptible
R117	588012	218086	Residential	15.9	13.9	15.1	1.2	Small	16.8	15.8	16.1	0.3	Imperceptible	10.5	9.6	10.0	0.4	Small
R101	589031	216958	Residential	16.5	14.4	15.0	0.6	Small	15.3	14.2	14.4	0.2	Imperceptible	10.3	9.5	9.6	0.1	Imperceptible
R120	585907	218318	Residential	18.1	16.0	14.9	-1.1	Small	17.0	16.1	15.7	-0.4	Imperceptible	10.9	10.1	9.7	-0.4	Small
R114	588012	217981	Residential	15.5	13.6	14.7	1.1	Small	16.5	15.5	15.8	0.3	Imperceptible	10.4	9.6	9.9	0.3	Small
R121	585955	218359	Residential	16.8	14.7	14.7	0.0	Imperceptible	16.7	15.7	15.6	-0.1	Imperceptible	10.5	9.7	9.6	-0.1	Imperceptible
R154	590966	222359	Residential	12.9	10.9	14.6	3.7	Medium	18.6	17.4	18.0	0.6	Small	10.8	9.9	10.5	0.6	Small
R105	589482	217238	Residential	16.9	14.7	14.6	-0.1	Imperceptible	15.5	14.4	14.4	0.0	Imperceptible	10.3	9.5	9.5	0.0	Imperceptible
R179	593248	224017	Residential	16.2	14.0	14.6	0.6	Small	17.9	16.8	17.0	0.2	Imperceptible	11.2	10.3	10.5	0.2	Imperceptible
R129	587784	218746	Residential	16.0	13.7	14.5	0.8	Small	17.7	16.6	16.8	0.2	Imperceptible	10.8	9.9	10.0	0.1	Imperceptible
R138	587417	219897	Residential	18.0	15.9	14.5	-1.4	Small	17.8	16.8	16.3	-0.5	Small	11.3	10.5	10.0	-0.5	Small

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change
R118	586597	218153	Residential	16.1	13.6	14.4	0.8	Small	17.1	15.9	16.0	0.1	Imperceptible	10.6	9.6	9.7	0.1	Imperceptible
R85	584475	215707	Residential	17.1	14.8	14.4	-0.4	Imperceptible	17.4	16.3	16.2	-0.1	Imperceptible	10.7	9.8	9.6	-0.2	Imperceptible
R77	571823	215194	Residential	19.5	14.3	14.4	0.1	Imperceptible	17.4	15.6	15.6	0.0	Imperceptible	11.1	9.5	9.5	0.0	Imperceptible
P7	579069	211589	Planning Application	16.4	14.0	14.3	0.3	Imperceptible	16.1	14.9	14.9	0.0	Imperceptible	10.5	9.5	9.5	0.0	Imperceptible
R115	585658	218019	Residential	16.8	14.5	14.3	-0.2	Imperceptible	16.7	15.6	15.4	-0.2	Imperceptible	10.5	9.7	9.5	-0.2	Imperceptible
R113	585517	217911	Residential	16.7	14.3	14.3	0.0	Imperceptible	18.2	17.1	17.0	-0.1	Imperceptible	11.2	10.3	10.2	-0.1	Imperceptible
R90	589574	216284	Residential	15.9	13.7	14.2	0.5	Small	15.2	14.1	14.2	0.1	Imperceptible	10.2	9.3	9.5	0.2	Imperceptible
P6	578700	211444	Planning Application	16.2	13.8	14.2	0.4	Imperceptible	17.5	16.3	16.3	0.0	Imperceptible	10.9	10.0	10.0	0.0	Imperceptible
R130	587844	218768	Residential	15.8	13.5	14.2	0.7	Small	17.7	16.6	16.7	0.1	Imperceptible	10.8	9.9	10.0	0.1	Imperceptible
P20	593328	224074	Planning Application	15.8	13.6	14.2	0.6	Small	17.9	16.7	16.9	0.2	Imperceptible	11.1	10.2	10.3	0.1	Imperceptible
R84	584741	215667	Residential	16.1	13.9	14.1	0.2	Imperceptible	17.2	16.1	16.2	0.1	Imperceptible	10.5	9.6	9.6	0.0	Imperceptible
R139	587792	220291	Residential	20.0	17.2	14.0	-3.2	Medium	17.8	16.6	16.1	-0.5	Small	11.2	10.2	9.7	-0.5	Small
R124	587920	218578	Residential	15.2	13.1	13.9	0.8	Small	17.7	16.6	16.8	0.2	Imperceptible	10.7	9.8	10.0	0.2	Imperceptible
R94	589409	216560	Residential	15.6	13.4	13.9	0.5	Small	15.2	14.0	14.2	0.2	Imperceptible	10.2	9.3	9.4	0.1	Imperceptible
R79	583322	215219	Residential	15.6	13.2	13.9	0.7	Small	18.1	17.0	17.1	0.1	Imperceptible	11.0	10.0	10.1	0.1	Imperceptible
R100	589343	216869	Residential	16.4	14.1	13.8	-0.3	Imperceptible	15.3	14.1	14.0	-0.1	Imperceptible	10.3	9.4	9.3	-0.1	Imperceptible
R181	593922	224321	Residential	15.5	13.3	13.8	0.5	Small	17.8	16.7	16.9	0.2	Imperceptible	11.1	10.2	10.3	0.1	Imperceptible
R97	589285	216661	Residential	15.7	13.5	13.7	0.2	Imperceptible	15.2	14.1	14.1	0.0	Imperceptible	10.2	9.3	9.4	0.1	Imperceptible
R116	586083	218020	Residential	15.2	12.9	13.7	0.8	Small	17.0	15.9	15.9	0.0	Imperceptible	10.5	9.6	9.7	0.1	Imperceptible
R80	584941	215261	Residential	16.2	13.9	13.7	-0.2	Imperceptible	17.3	16.1	16.1	0.0	Imperceptible	10.5	9.6	9.6	0.0	Imperceptible
R83	589040	215625	Residential	15.9	13.8	13.5	-0.3	Imperceptible	15.8	14.6	14.6	0.0	Imperceptible	10.2	9.4	9.3	-0.1	Imperceptible
R70	588151	214821	Residential	15.6	13.5	13.2	-0.3	Imperceptible	15.9	14.8	14.7	-0.1	Imperceptible	10.1	9.2	9.2	0.0	Imperceptible
R119	585983	218311	Residential	14.6	12.6	13.1	0.5	Small	16.3	15.2	15.3	0.1	Imperceptible	10.1	9.3	9.3	0.0	Imperceptible
R137	588105	219835	Residential	14.1	11.9	13.0	1.1	Small	16.4	15.3	15.4	0.1	Imperceptible	10.0	9.1	9.2	0.1	Imperceptible

Receptor ID	X	Y	Property use	Annual mean NO ₂ concentration (µg/m ³)					Annual mean PM ₁₀ concentration (µg/m ³)					Annual mean PM _{2.5} concentration (µg/m ³)				
				Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change	Base 2019	DM 2027	DS 2027	DS-DM 2027	Magnitude of change
R109	589769	217460	Residential	15.1	13.0	12.8	-0.2	Imperceptible	15.0	13.9	13.8	-0.1	Imperceptible	9.9	9.0	8.9	-0.1	Imperceptible
R72	585357	214939	Residential	14.8	12.9	12.8	-0.1	Imperceptible	15.0	13.9	13.9	0.0	Imperceptible	9.8	9.0	8.9	-0.1	Imperceptible
P17	587583	219706	Planning Application	15.2	12.9	12.8	-0.1	Imperceptible	17.1	15.9	15.8	-0.1	Imperceptible	10.6	9.6	9.6	0.0	Imperceptible
R108	585714	217332	Residential	13.9	11.8	12.6	0.8	Small	17.7	16.6	16.7	0.1	Imperceptible	10.8	9.8	10.0	0.2	Imperceptible
R143	594185	220869	Residential	14.7	12.7	12.6	-0.1	Imperceptible	16.1	15.0	15.0	0.0	Imperceptible	10.2	9.3	9.2	-0.1	Imperceptible
R49	575465	212100	Residential	16.2	12.8	12.5	-0.3	Imperceptible	17.5	16.0	15.9	-0.1	Imperceptible	10.6	9.4	9.4	0.0	Imperceptible
R88	589563	216255	Residential	14.1	12.0	12.3	0.3	Imperceptible	14.9	13.7	13.8	0.1	Imperceptible	9.9	9.0	9.1	0.1	Imperceptible
P16	587444	219464	Planning Application	14.4	12.2	12.3	0.1	Imperceptible	17.0	15.8	15.8	0.0	Imperceptible	10.5	9.6	9.6	0.0	Imperceptible
R107	589505	217287	Residential	14.4	12.4	12.3	-0.1	Imperceptible	14.9	13.8	13.8	0.0	Imperceptible	9.8	8.9	8.9	0.0	Imperceptible
R110	588051	217733	Residential	13.4	11.6	12.2	0.6	Small	16.2	15.1	15.3	0.2	Imperceptible	10.0	9.2	9.4	0.2	Imperceptible
R74	588355	214997	Residential	14.3	12.4	12.2	-0.2	Imperceptible	15.7	14.6	14.5	-0.1	Imperceptible	9.9	9.0	9.0	0.0	Imperceptible
R98	585350	216681	Residential	13.4	11.4	12.1	0.7	Small	15.9	14.7	14.9	0.2	Imperceptible	9.8	8.9	9.1	0.2	Imperceptible
R142	594139	220814	Residential	13.8	12.0	11.8	-0.2	Imperceptible	16.0	14.9	14.8	-0.1	Imperceptible	10.0	9.1	9.1	0.0	Imperceptible
R125	592003	218603	Residential	13.6	11.9	11.7	-0.2	Imperceptible	16.1	15.0	15.0	0.0	Imperceptible	10.0	9.2	9.1	-0.1	Imperceptible
R92	585176	216404	Residential	13.2	11.2	11.6	0.4	Imperceptible	15.8	14.7	14.8	0.1	Imperceptible	9.8	8.9	9.0	0.1	Imperceptible
R106	589458	217240	Residential	13.4	11.4	11.5	0.1	Imperceptible	14.8	13.7	13.7	0.0	Imperceptible	9.7	8.8	8.8	0.0	Imperceptible
R148	594204	221294	Residential	13.1	11.2	11.1	-0.1	Imperceptible	16.3	15.1	15.1	0.0	Imperceptible	10.0	9.1	9.1	0.0	Imperceptible
R147	590206	221279	Residential	12.5	10.6	10.8	0.2	Imperceptible	16.3	15.1	15.1	0.0	Imperceptible	9.8	8.9	8.9	0.0	Imperceptible
R149	590986	221420	Residential	12.3	10.4	10.5	0.1	Imperceptible	16.2	15.1	15.1	0.0	Imperceptible	9.8	8.9	8.9	0.0	Imperceptible
R69	587035	214606	Residential	12.2	10.4	10.5	0.1	Imperceptible	14.8	13.7	13.7	0.0	Imperceptible	9.5	8.6	8.6	0.0	Imperceptible
R52	574524	212837	Residential	12.7	10.6	10.5	-0.1	Imperceptible	16.7	15.5	15.5	0.0	Imperceptible	10.1	9.1	9.1	0.0	Imperceptible
R150	591263	221465	Residential	11.5	9.7	9.8	0.1	Imperceptible	16.3	15.2	15.2	0.0	Imperceptible	9.8	8.9	8.9	0.0	Imperceptible
R68	572857	213787	Residential	10.8	9.4	9.4	0.0	Imperceptible	16.4	15.4	15.4	0.0	Imperceptible	9.8	8.9	8.9	0.0	Imperceptible
R61	572675	213323	Residential	10.8	9.4	9.4	0.0	Imperceptible	16.4	15.4	15.4	0.0	Imperceptible	9.8	9.0	8.9	-0.1	Imperceptible

Ecological: Nutrient nitrogen deposition

1.3.2 Table 1.5 shows the modelled operational results for all ecological receptors found to have potentially significant effects as a result of nitrogen deposition from road-increment NO₂ and NH₃. The nitrogen deposition results from road NO₂ alone (i.e. excluding NH₃) are also presented. The receptor results are ordered by site and receptor ID.

Table 1.5 Modelled ecological nitrogen deposition results in the opening year (2027) for receptors where results were deemed to be potentially significant according to DMRB LA 105 criteria

Receptor ID	Designated site	Distance to nearest affected road ^a	Minimum critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	Estimated nutrient N deposition - without NH ₃ contribution			Estimated nutrient N deposition - with NH ₃ contribution		
					DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?	DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?
ECO_F1_0	Boreham Road Gravel Pits LWS/ potential ancient woodland Porter's Grove	157.1	10	31.78	0.14	1.4	No	0.60	6.0	Yes
ECO_F1_10	Boreham Road Gravel Pits LWS/ potential ancient woodland Porter's Grove	167.1	10	31.78	0.13	1.3	No	0.57	5.7	Yes

Receptor ID	Designated site	Distance to nearest affected road ^a	Minimum critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	Estimated nutrient N deposition - without NH ₃ contribution			Estimated nutrient N deposition - with NH ₃ contribution		
					DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?	DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?
ECO_F1_20	Boreham Road Gravel Pits LWS/ potential ancient woodland Porter's Grove	177.1	10	31.78	0.12	1.2	No	0.53	5.3	Yes
ECO_F1_30	Boreham Road Gravel Pits LWS/ potential ancient woodland Porter's Grove	187.1	10	31.78	0.12	1.2	No	0.50	5.0	Yes
ECO_F1_40	Boreham Road Gravel Pits LWS/ potential ancient woodland Porter's Grove	197.1	10	31.78	0.11	1.1	No	0.47	4.7	Yes
ECO_H1_0	Whet Mead LNR/LWS	22.5	20	16.94	0.60	3.0	Yes	3.04	15.2	Yes

Receptor ID	Designated site	Distance to nearest affected road ^a	Minimum critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	Estimated nutrient N deposition - without NH ₃ contribution			Estimated nutrient N deposition - with NH ₃ contribution		
					DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?	DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?
ECO_H1_10	Whet Mead LNR/LWS	32.4	20	16.94	0.42	2.1	Yes	2.12	10.6	Yes
ECO_H1_20	Whet Mead LNR/LWS	42.2	20	16.94	0.32	1.6	No	1.65	8.2	Yes
ECO_H1_30	Whet Mead LNR/LWS	52.1	20	16.94	0.26	1.3	No	1.35	6.8	Yes
ECO_H1_40	Whet Mead LNR/LWS	62.0	20	16.94	0.22	1.1	No	1.15	5.7	Yes
ECO_H1_50	Whet Mead LNR/LWS	71.9	20	16.94	0.19	0.9	No	1.00	5.0	Yes
ECO_H1_60	Whet Mead LNR/LWS	81.7	20	16.94	0.17	0.8	No	0.88	4.4	Yes
ECO_H1_70	Whet Mead LNR/LWS	91.6	20	16.94	0.15	0.7	No	0.79	3.9	Yes
ECO_H1_80	Whet Mead LNR/LWS	101.5	20	16.94	0.13	0.7	No	0.71	3.6	Yes

Receptor ID	Designated site	Distance to nearest affected road ^a	Minimum critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	Estimated nutrient N deposition - without NH ₃ contribution			Estimated nutrient N deposition - with NH ₃ contribution		
					DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?	DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?
ECO_H1_90	Whet Mead LNR/LWS	111.4	20	16.94	0.12	0.6	No	0.65	3.3	Yes
ECO_H1_100	Whet Mead LNR/LWS	121.2	20	16.94	0.11	0.5	No	0.60	2.99	Yes
ECO_H2_0	Whet Mead LNR/LWS	12.4	20	16.94	1.28	6.4	Yes	6.49	32.5	Yes
ECO_H2_10	Whet Mead LNR/LWS	22.4	20	16.94	0.71	3.6	Yes	3.60	18.0	Yes
ECO_H2_20	Whet Mead LNR/LWS	32.3	20	16.94	0.49	2.4	Yes	2.49	12.4	Yes
ECO_H2_30	Whet Mead LNR/LWS	42.3	20	16.94	0.37	1.9	No	1.90	9.5	Yes
ECO_H2_40	Whet Mead LNR/LWS	52.3	20	16.94	0.30	1.5	No	1.54	7.7	Yes
ECO_H2_50	Whet Mead LNR/LWS	62.3	20	16.94	0.25	1.2	No	1.30	6.5	Yes

Receptor ID	Designated site	Distance to nearest affected road ^a	Minimum critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	Estimated nutrient N deposition - without NH ₃ contribution			Estimated nutrient N deposition - with NH ₃ contribution		
					DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?	DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?
ECO_H2_60	Whet Mead LNR/LWS	72.3	20	16.94	0.22	1.1	No	1.12	5.6	Yes
ECO_H2_70	Whet Mead LNR/LWS	82.3	20	16.94	0.19	0.9	No	0.98	4.9	Yes
ECO_H2_80	Whet Mead LNR/LWS	92.3	20	16.94	0.17	0.8	No	0.88	4.4	Yes
ECO_H2_90	Whet Mead LNR/LWS	102.3	20	16.94	0.15	0.7	No	0.79	3.9	Yes
ECO_H2_100	Whet Mead LNR/LWS	112.3	20	16.94	0.13	0.7	No	0.72	3.6	Yes
ECO_H2_110	Whet Mead LNR/LWS	122.3	20	16.94	0.12	0.6	No	0.66	3.3	Yes
ECO_H2_120	Whet Mead LNR/LWS	132.3	20	16.94	0.11	0.6	No	0.61	3.0	Yes
ECO_J3_0	Braxted Park LWS	2.2	10	29.96	0.28	2.8	No	1.40	14.0	Yes

Receptor ID	Designated site	Distance to nearest affected road ^a	Minimum critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	Estimated nutrient N deposition - without NH ₃ contribution			Estimated nutrient N deposition - with NH ₃ contribution		
					DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?	DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?
ECO_J3_10	Braxted Park LWS	12.2	10	29.96	0.09	0.9	No	0.45	4.5	Yes
ECO_O_0	Brockwell Meadows LWS	11.6	20	18.34	0.11	0.6	No	0.72	3.6	Yes
ECO_O_10	Brockwell Meadows LWS	21.1	20	18.34	0.09	0.5	No	0.58	2.9	Yes
ECO_O_20	Brockwell Meadows LWS	30.7	20	18.34	0.08	0.4	No	0.51	2.6	Yes
ECO_O_30	Brockwell Meadows LWS	40.2	20	18.34	0.07	0.4	No	0.47	2.4	Yes
ECO_Q_0	Perry's Wood LWS/ancient woodland	4.9	10	32.48	0.55	5.5	Yes	2.82	28.2	Yes
ECO_Q_10	Perry's Wood LWS/ancient woodland	14.7	10	32.48	0.21	2.1	No	1.12	11.2	Yes

Receptor ID	Designated site	Distance to nearest affected road ^a	Minimum critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	Estimated nutrient N deposition - without NH ₃ contribution			Estimated nutrient N deposition - with NH ₃ contribution		
					DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?	DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?
ECO_Q_20	Perry's Wood LWS/ancient woodland	24.5	10	32.48	0.14	1.4	No	0.73	7.3	Yes
ECO_Q_30	Perry's Wood LWS/ancient woodland	34.3	10	32.48	0.10	1.0	No	0.54	5.4	Yes
ECO_Q_40	Perry's Wood LWS/ancient woodland	44.0	10	32.48	0.08	0.8	No	0.45	4.5	Yes
ECO_X_0	Cook's Lane Lexden LWS	20.3	10	31.64	0.17	1.7	No	0.66	6.6	Yes
ECO_X_10	Cook's Lane Lexden LWS	30.0	10	31.64	0.14	1.4	No	0.53	5.3	Yes
ECO_X_20	Cook's Lane Lexden LWS	39.7	10	31.64	0.11	1.1	No	0.45	4.5	Yes
ECO_AC_0	West House Wood LWS	11.7	10	31.64	0.16	1.6	No	0.65	6.5	Yes

Receptor ID	Designated site	Distance to nearest affected road ^a	Minimum critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	Estimated nutrient N deposition - without NH ₃ contribution			Estimated nutrient N deposition - with NH ₃ contribution		
					DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?	DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?
ECO_AC_10	West House Wood LWS	21.7	10	31.64	0.11	1.1	No	0.45	4.5	Yes
ECO_AE_0	Smythe's Green LWS	3.8	20	23.24	0.10	0.5	No	0.59	3.0	Yes
ECO_TRE_E_5	Tree 9259 Sessile oak (VV) ^b	63.2	10	31.78	0.29	2.9	No	1.21	12.1	Yes
ECO_TRE_E_6	Tree 9238 Pedunculate oak (VV)	167.1	10	31.78	0.13	1.3	No	0.58	5.8	Yes
ECO_TRE_E_7	Tree 9346 Wild cherry (VV)	50.5	10	31.78	0.34	3.4	No	1.40	14.0	Yes
ECO_TRE_E_8	T124 Willow (PV)	50.2	10	31.78	0.53	5.3	Yes	2.14	21.4	Yes
ECO_TRE_E_9	Tree 9226 Pedunculate oak (VV)	140.7	10	31.78	0.10	1.0	No	0.44	4.4	Yes
ECO_TRE_E_12	T234 Elm (PV)	99.8	10	29.96	0.24	2.4	No	1.02	10.2	Yes

Receptor ID	Designated site	Distance to nearest affected road ^a	Minimum critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	Estimated nutrient N deposition - without NH ₃ contribution			Estimated nutrient N deposition - with NH ₃ contribution		
					DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?	DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?
ECO_TRE E_14	T308 Willow (PV)	162.3	10	29.96	0.13	1.3	No	0.59	5.9	Yes
ECO_TRE E_15	T316 Oak (PV)	25.8	10	29.96	1.04	10.4	Yes	4.59	45.9	Yes
ECO_TRE E_25	T422 Willow (PV)	75.0	10	29.96	0.95	9.5	Yes	4.21	42.1	Yes
ECO_TRE E_29	T494 Alder (PV)	80.2	10	32.48	0.24	2.4	No	1.04	10.4	Yes
ECO_TRE E_30	T506 Elm (PV)	52.0	10	32.48	0.63	6.3	Yes	2.54	25.4	Yes
ECO_TRE E_33	T549 Oak (PV)	148.9	10	32.48	0.09	0.9	No	0.47	4.7	Yes
ECO_TRE E_34	T562 Oak (PV)	163.1	10	32.48	0.26	2.6	No	1.17	11.7	Yes
ECO_TRE E_38	T649 Elm (VV)	53.1	10	38.22	1.60	16.0	Yes	7.26	72.6	Yes

Receptor ID	Designated site	Distance to nearest affected road ^a	Minimum critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	Estimated nutrient N deposition - without NH ₃ contribution			Estimated nutrient N deposition - with NH ₃ contribution		
					DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?	DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?
ECO_TRE E_40	T744 Oak (PV)	128.8	10	32.9	0.45	4.5	Yes	1.87	18.7	Yes
ECO_TRE E_41	T792 Field maple (PV)	41.5	10	32.9	0.36	3.6	No	1.43	14.3	Yes
ECO_TRE E_43	T1013 Oak (VV)	152.0	10	31.78	0.10	1.0	No	0.44	4.4	Yes
ECO_TRE E_44	T1124 Alder (PV)	167.7	10	29.96	0.18	1.8	No	0.58	5.8	Yes
ECO_TRE E_45	T1131 Ash (PV)	170.0	10	29.96	0.18	1.8	No	0.58	5.8	Yes
ECO_TRE E_46	G1018 Oak (PV)	99.2	10	31.78	0.34	3.4	No	1.40	14.0	Yes
ECO_TRE E_48	G489 Elm, ash, hawthorn, field maple, hornbeam (PV)	26.6	10	32.48	0.63	6.3	Yes	2.54	25.4	Yes

Receptor ID	Designated site	Distance to nearest affected road ^a	Minimum critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	Estimated nutrient N deposition - without NH ₃ contribution			Estimated nutrient N deposition - with NH ₃ contribution		
					DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?	DM to DS change (kg N/ha/yr)	Change/CL (%)	Potentially significant?
ECO_TRE E_50	G543 Elm, field maple (PV)	30.5	10	32.48	0.63	6.3	Yes	2.54	25.4	Yes
ECO_TRE E_53	Tree 9322 Pedunculate oak (VA)	194.9	10	31.78	0.11	1.1	No	0.47	4.7	Yes

^a The range over which modelled receptors were found to have potentially significant effects. Distances are measured to the nearest road centreline in the ARN.

^b VV = verified veteran tree location, PV = potential veteran tree location, VA = verified ancient tree location

Compliance risk

1.3.3 Receptor results shown in Table 1.6 have been ordered according to the qualifying receptor ID.

Table 1.6 Modelled PCM compliance risk receptor results, representative of qualifying features, in the opening year (2027)

PCM road Census ID	Qualifying receptor ID	Grid reference		2027 annual mean modelled NO ₂ concentration (µg/m ³)			
		X	Y	PCM model	Qualifying receptors		
					DM	DS	DS – DM
802048769	PCM_106	572695	207916	20.0	21.9	22.0	0.1
802048769	PCM_107	572677	207869	20.0	22.2	22.7	0.5
802048769	PCM_108	572661	207822	20.0	22.9	23.3	0.4
802048769	PCM_109	572645	207774	20.0	23.4	23.6	0.2
802048769	PCM_110	572632	207726	20.0	23.5	23.7	0.2
802048769	PCM_111	572618	207678	20.0	23.6	23.8	0.2
802048769	PCM_112	572605	207630	20.0	23.8	24.0	0.2
802048769	PCM_113	572593	207581	20.0	24.0	24.5	0.5
802048769	PCM_114	572589	207541	20.0	24.2	24.8	0.6
802048769	PCM_115	572558	207533	20.0	20.8	20.9	0.1
802048769	PCM_116	572562	207570	20.0	20.7	20.9	0.2
802048769	PCM_117	572571	207619	20.0	20.8	21.0	0.2
802048769	PCM_118	572583	207668	20.0	20.7	21.0	0.3
802048769	PCM_119	572601	207740	20.0	20.6	20.9	0.3
802048769	PCM_120	572612	207789	20.0	19.9	20.2	0.3
802048769	PCM_121	572625	207837	20.0	19.2	19.4	0.2
802048769	PCM_165	572911	208254	20.0	15.4	15.5	0.1
802048769	PCM_166	572883	208213	20.0	15.4	15.5	0.1
802048769	PCM_167	572854	208172	20.0	15.4	15.5	0.1
802048769	PCM_168	572825	208132	20.0	15.5	15.6	0.1
802048769	PCM_169	572797	208091	20.0	15.7	15.8	0.1
802048769	PCM_170	572769	208049	20.0	16.0	16.1	0.1

PCM road Census ID	Qualifying receptor ID	Grid reference		2027 annual mean modelled NO ₂ concentration (µg/m ³)			
		X	Y	PCM model	Qualifying receptors		
					DM	DS	DS – DM
802048769	PCM_171	572742	208007	20.0	16.5	16.7	0.2
802048769	PCM_172	572717	207964	20.0	19.9	20.1	0.2
802048769	PCM_180	572583	207436	20.0	18.4	18.5	0.1
802048769	PCM_181	572550	207398	20.0	18.6	18.8	0.2
802048769	PCM_182	572531	207328	20.0	18.4	18.5	0.1
802048769	PCM_183	572517	207281	20.0	18.8	19.1	0.3
802048769	PCM_184	572493	207275	20.0	17.3	17.4	0.1
802048769	PCM_185	572505	207324	20.0	17.4	17.4	0.0
802048769	PCM_186	572522	207396	20.0	17.4	17.5	0.1
802048769	PCM_187	572544	207441	20.0	17.7	17.8	0.1
802058301	PCM_82	574065	209321	15.7	19.6	19.5	-0.1
802058301	PCM_83	574060	209271	15.7	19.9	19.9	0.0
802058301	PCM_84	574031	209203	15.7	18.9	19.0	0.1
802058301	PCM_85	573995	209168	15.7	19.6	19.7	0.1
802058301	PCM_86	573983	209193	15.7	19.9	20.1	0.2
802058301	PCM_87	574016	209230	15.7	18.7	18.6	-0.1
802058301	PCM_88	574030	209278	15.7	18.4	18.3	-0.1
802058301	PCM_89	574037	209327	15.7	18.3	18.1	-0.2
802058301	PCM_139	573321	208856	15.7	19.7	20.1	0.4
802058301	PCM_140	573252	208885	15.7	17.0	17.0	0.0
802058301	PCM_141	573207	208905	15.7	16.5	16.5	0.0
802058301	PCM_142	573166	208934	15.7	16.3	16.3	0.0
802058301	PCM_143	573175	208947	15.7	17.8	17.9	0.1
802058301	PCM_144	573216	208919	15.7	18.0	18.0	0.0
802058301	PCM_145	573331	208869	15.7	20.8	21.1	0.3
802058301	PCM_146	573418	208796	15.7	18.1	18.2	0.1
802058301	PCM_147	573357	208841	15.7	22.3	22.6	0.3

PCM road Census ID	Qualifying receptor ID	Grid reference		2027 annual mean modelled NO ₂ concentration (µg/m ³)			
		X	Y	PCM model	Qualifying receptors		
					DM	DS	DS – DM
802058301	PCM_148	573368	208852	15.7	23.4	23.7	0.3
802058301	PCM_149	573428	208808	15.7	19.5	19.7	0.2
802058301	PCM_150	573262	208898	15.7	18.3	18.3	0.0
802058301	PCM_151	573575	208805	15.7	18.6	18.6	0.0
802058301	PCM_152	573586	208789	15.7	18.9	19.0	0.1
802058301	PCM_153	573546	208759	15.7	18.5	18.6	0.1
802058301	PCM_154	573535	208780	15.7	19.0	19.0	0.0
802058301	PCM_155	573778	208969	15.7	18.1	18.2	0.1
802058301	PCM_156	573815	209003	15.7	17.9	17.9	0.0
802058301	PCM_157	573822	208989	15.7	18.9	19.0	0.1
802058301	PCM_158	573785	208956	15.7	18.7	18.8	0.1
802058301	PCM_159	573927	209076	15.7	18.5	18.5	0.0
802058301	PCM_160	573872	209026	15.7	17.4	17.4	0.0
802058301	PCM_161	573850	209044	15.7	16.6	16.7	0.1
802058301	PCM_162	573901	209095	15.7	17.4	17.4	0.0
802006208	PCM_10	596087	225310	22.1	25.9	26.4	0.5
802006208	PCM_11	596040	225293	22.1	26.0	26.5	0.5
802006208	PCM_12	595992	225278	22.1	26.5	27.0	0.5
802006208	PCM_13	595944	225266	22.1	26.6	27.1	0.5
802006208	PCM_30	595105	225131	22.1	25.6	26.2	0.6
802006208	PCM_33	594958	225099	22.1	21.2	21.5	0.3
802006208	PCM_52	595041	225162	22.1	29.3	29.9	0.6
802006208	PCM_71	595978	225317	22.1	27.2	27.8	0.6
802006208	PCM_72	596025	225332	22.1	26.1	26.7	0.6