



**Haweswater Aqueduct Resilience Programme - Proposed Marl Hill  
Section**

**Environmental Statement**

**Volume 4**

**Appendix 18.2: Dispersion Modelling Results**

June 2021



**Water for the North West**



## Haweswater Aqueduct Resilience Programme - Proposed Marl Hill Section

Project No: B27070CT  
Document Title: Proposed Marl Hill Section Environmental Statement  
Volume 4 Appendix 18.2: Dispersion Modelling Results  
Document Ref: RVBC-MH-TA-018-002  
Revision: 0  
Date: June 2021  
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## **1. Diesel Generator Emissions – Results at Human Locations**

**Table 1: Results of detailed assessment at sensitive human locations for maximum 8-hour mean and 1-hour mean CO predicted concentrations**

Location ID	Baseline air quality level ( $\mu\text{g}/\text{m}^3$ )	Maximum 8-hour running mean					Maximum 1-hour mean				
		EQS ( $\mu\text{g}/\text{m}^3$ )	PC ( $\mu\text{g}/\text{m}^3$ )	PEC ( $\mu\text{g}/\text{m}^3$ )	PC/EQS (%)	PEC/EQS (%)	EQS ( $\mu\text{g}/\text{m}^3$ )	PC ( $\mu\text{g}/\text{m}^3$ )	PEC ( $\mu\text{g}/\text{m}^3$ )	PC/EQS (%)	PEC/EQS (%)
R1	164	10,000	21.3	185	0.21 %	1.9 %	30,000	31.2	195	0.10 %	0.7 %
R2	164		11.1	175	0.11 %	1.8 %		19.4	183	0.06 %	0.6 %
R3	164		13.5	177	0.13 %	1.8 %		28.1	192	0.09 %	0.6 %
R4	169		8.3	177	0.08 %	1.8 %		14.3	183	0.05 %	0.6 %
R5	168		11.5	179	0.12 %	1.8 %		13.8	181	0.05 %	0.6 %
R6	168		16.9	184	0.17 %	1.8 %		31.4	199	0.10 %	0.7 %
R7	176		9.8	186	0.10 %	1.9 %		14.0	190	0.05 %	0.6 %
R8	165		9.0	174	0.09 %	1.7 %		15.2	180	0.05 %	0.6 %
R9	165		8.0	173	0.08 %	1.7 %		12.2	177	0.04 %	0.6 %
R10	164		8.4	172	0.08 %	1.7 %		16.7	181	0.06 %	0.6 %
R11	165		8.5	173	0.09 %	1.7 %		14.1	179	0.05 %	0.6 %
R12	190		29.7	220	0.30 %	2.2 %		43.9	234	0.15 %	0.8 %
R13	190		15.3	206	0.15 %	2.1 %		30.6	221	0.10 %	0.7 %
R14	194		16.8	211	0.17 %	2.1 %		33.8	228	0.11 %	0.8 %
R15	194		16.8	211	0.17 %	2.1 %		40.1	234	0.13 %	0.8 %
R16	194		18.8	213	0.19 %	2.1 %		35.9	230	0.12 %	0.8 %
R17	211		10.5	222	0.10 %	2.2 %		23.4	235	0.08 %	0.8 %
R18	211		15.5	227	0.15 %	2.3 %		24.8	236	0.08 %	0.8 %
R19	211		18.4	229	0.18 %	2.3 %		22.7	234	0.08 %	0.8 %
R20	189		27.9	217	0.28 %	2.2 %		51.6	241	0.17 %	0.8 %
R21	194		19.0	213	0.19 %	2.1 %		40.0	234	0.13 %	0.8 %
R22	194		20.8	215	0.21 %	2.1 %		37.1	231	0.12 %	0.8 %
R23	194		18.4	212	0.18 %	2.1 %		35.6	230	0.12 %	0.8 %
R24	162		8.2	170	0.08 %	1.7 %		10.5	173	0.04 %	0.6 %
R25	168		20.8	188	0.21 %	1.9 %		34.5	202	0.11 %	0.7 %
R26	168		62.4	230	0.62 %	2.3 %		83.2	251	0.28 %	0.8 %
R27	168		36.3	204	0.36 %	2.0 %		48.1	216	0.16 %	0.7 %

Location ID	Baseline air quality level (µg/m³)	Maximum 8-hour running mean					Maximum 1-hour mean				
		EQS (µg/m³)	PC (µg/m³)	PEC (µg/m³)	PC/EQS (%)	PEC/EQS (%)	EQS (µg/m³)	PC (µg/m³)	PEC (µg/m³)	PC/EQS (%)	PEC/EQS (%)
R28	164		16.3	180	0.16 %	1.8 %		30.8	195	0.10 %	0.6 %
R29	164		22.3	186	0.22 %	1.9 %		33.7	198	0.11 %	0.7 %
R30	164		30.7	195	0.31 %	1.9 %		40.1	204	0.13 %	0.7 %
R31	164		25.0	189	0.25 %	1.9 %		43.2	207	0.14 %	0.7 %
R32	176		16.5	192	0.16 %	1.9 %		29.6	205	0.10 %	0.7 %
R33	194		25.7	220	0.26 %	2.2 %		48.8	243	0.16 %	0.8 %
R34	194		28.1	222	0.28 %	2.2 %		54.4	248	0.18 %	0.8 %
R35	194		41.6	235	0.42 %	2.4 %		60.4	254	0.20 %	0.8 %
R36	190		49.8	240	0.50 %	2.4 %		63.1	253	0.21 %	0.8 %
R37	190		55.0	245	0.55 %	2.5 %		71.7	262	0.24 %	0.9 %
R38	189		47.9	237	0.48 %	2.4 %		64.7	254	0.22 %	0.8 %
R39	189		33.2	223	0.33 %	2.2 %		54.7	244	0.18 %	0.8 %
R40	189		50.6	240	0.51 %	2.4 %		72.3	262	0.24 %	0.9 %
R41	189		67.2	257	0.67 %	2.6 %		78.1	267	0.26 %	0.9 %
R42	194		49.2	243	0.49 %	2.4 %		84.1	278	0.28 %	0.9 %
R43	194		40.8	235	0.41 %	2.3 %		60.1	254	0.20 %	0.8 %
R44	194		25.7	220	0.26 %	2.2 %		51.1	245	0.17 %	0.8 %

**Table 2: Results of detailed assessment at sensitive human locations for annual mean and 1-hour mean (99.79<sup>th</sup> percentile) NO<sub>2</sub> predicted concentrations**

Location ID	Annual mean						99.79 <sup>th</sup> percentile of 1-hour mean					
	Baseline air quality level (µg/m <sup>3</sup> )	EQS (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)	Baseline air quality level (µg/m <sup>3</sup> )	EQS (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)
R1	3.8	40	0.22	4.0	0.54 %	9.9 %	7.5	200	1.1	8.6	0.6 %	4.3 %
R2	3.8		0.05	3.8	0.13 %	9.5 %	7.5		0.5	8.0	0.3 %	4.0 %
R3	3.8		0.06	3.8	0.14 %	9.5 %	7.5		0.7	8.2	0.4 %	4.1 %
R4	3.8		0.04	3.8	0.09 %	9.5 %	7.5		0.5	8.0	0.2 %	4.0 %
R5	3.8		0.03	3.8	0.08 %	9.6 %	7.6		0.5	8.1	0.3 %	4.1 %
R6	4.0		0.13	4.1	0.32 %	10.3 %	8.0		1.0	8.9	0.5 %	4.5 %
R7	4.4		0.07	4.5	0.18 %	11.3 %	8.9		0.6	9.4	0.3 %	4.7 %
R8	4.9		0.07	5.0	0.17 %	12.4 %	9.8		0.5	10.3	0.3 %	5.2 %
R9	4.9		0.06	5.0	0.15 %	12.5 %	9.9		0.5	10.4	0.2 %	5.2 %
R10	3.8		0.08	3.8	0.21 %	9.6 %	7.5		0.5	8.0	0.3 %	4.0 %
R11	4.7		0.06	4.8	0.16 %	11.9 %	9.4		0.5	9.9	0.3 %	5.0 %
R12	4.2		0.23	4.5	0.56 %	11.2 %	8.5		2.5	10.9	1.2 %	5.5 %
R13	4.2		0.05	4.3	0.12 %	10.7 %	8.5		1.3	9.7	0.6 %	4.9 %
R14	4.4		0.09	4.5	0.22 %	11.3 %	8.8		1.5	10.3	0.7 %	5.2 %
R15	4.5		0.04	4.6	0.11 %	11.5 %	9.1		1.5	10.6	0.8 %	5.3 %
R16	4.5		0.11	4.6	0.27 %	11.6 %	9.1		1.7	10.8	0.9 %	5.4 %
R17	5.8		0.09	5.8	0.22 %	14.6 %	11.5		1.0	12.5	0.5 %	6.3 %
R18	5.2		0.09	5.3	0.22 %	13.3 %	10.4		1.2	11.6	0.6 %	5.8 %
R19	5.7		0.08	5.7	0.19 %	14.4 %	11.3		1.0	12.4	0.5 %	6.2 %
R20	4.4		0.36	4.7	0.89 %	11.8 %	8.7		2.5	11.2	1.2 %	5.6 %
R21	4.5		0.04	4.6	0.09 %	11.4 %	9.1		1.6	10.7	0.8 %	5.3 %
R22	4.5		0.06	4.6	0.16 %	11.5 %	9.1		1.7	10.7	0.8 %	5.4 %
R23	4.5		0.07	4.6	0.17 %	11.5 %	9.1		1.6	10.7	0.8 %	5.3 %
R24	3.7		0.03	3.7	0.07 %	9.3 %	7.4		0.5	7.9	0.2 %	4.0 %
R25	3.8		0.14	3.9	0.36 %	9.8 %	7.6		1.1	8.7	0.6 %	4.4 %
R26	3.8		0.18	4.0	0.44 %	9.9 %	7.6		2.9	10.5	1.4 %	5.2 %

Location ID	Annual mean						99.79 <sup>th</sup> percentile of 1-hour mean					
	Baseline air quality level (µg/m <sup>3</sup> )	EQS (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)	Baseline air quality level (µg/m <sup>3</sup> )	EQS (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)
R27	3.8		0.13	3.9	0.33 %	9.8 %	7.6		1.5	9.1	0.8 %	4.5 %
R28	3.8		0.06	3.8	0.15 %	9.5 %	7.5		0.8	8.3	0.4 %	4.2 %
R29	3.8		0.10	3.8	0.24 %	9.6 %	7.5		1.0	8.5	0.5 %	4.3 %
R30	3.8		0.34	4.1	0.85 %	10.2 %	7.5		1.4	8.9	0.7 %	4.5 %
R31	3.8		0.24	4.0	0.60 %	10.0 %	7.5		1.3	8.8	0.7 %	4.4 %
R32	3.9		0.16	4.0	0.40 %	10.1 %	7.7		0.8	8.6	0.4 %	4.3 %
R33	4.4		0.16	4.6	0.41 %	11.5 %	8.8		2.3	11.1	1.1 %	5.6 %
R34	4.4		0.20	4.6	0.51 %	11.6 %	8.8		2.6	11.5	1.3 %	5.7 %
R35	4.4		0.24	4.7	0.59 %	11.6 %	8.8		3.1	11.9	1.6 %	6.0 %
R36	4.2		0.24	4.5	0.59 %	11.2 %	8.5		3.5	12.0	1.8 %	6.0 %
R37	4.2		0.29	4.5	0.71 %	11.3 %	8.5		3.8	12.3	1.9 %	6.1 %
R38	4.4		0.74	5.1	1.85 %	12.7 %	8.7		3.6	12.3	1.8 %	6.1 %
R39	4.4		0.43	4.8	1.07 %	12.0 %	8.7		3.1	11.8	1.5 %	5.9 %
R40	4.4		0.66	5.0	1.64 %	12.5 %	8.7		4.18	12.9	2.1 %	6.4 %
R41	4.4		0.84	5.2	2.11 %	13.0 %	8.7		4.4	13.1	2.2 %	6.6 %
R42	4.5		0.49	5.0	1.24 %	12.6 %	9.1		3.7	12.8	1.9 %	6.4 %
R43	4.5		0.19	4.7	0.47 %	11.8 %	9.1		3.2	12.3	1.6 %	6.1 %
R44	4.5		0.08	4.6	0.20 %	11.6 %	9.1		2.2	11.3	1.1 %	5.7 %



**Table 3: Results of detailed assessment at sensitive human locations for 24-mean (99.18<sup>th</sup> percentile), 1-hour mean (99.73<sup>rd</sup> percentile) and 15-minute mean (99.9<sup>th</sup> percentile) SO<sub>2</sub> predicted concentrations**

Location ID	Baseline air quality level (µg/m <sup>3</sup> )	Maximum 24 hour mean (99.18 <sup>th</sup> %ile)					Maximum 1-hour mean (99.73 <sup>th</sup> %ile)					Maximum 15-minute (99.9 <sup>th</sup> %ile)				
		EQS (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)	EQS (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)	EQS (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)
R1	5.1	125	1.4	6.5	1.1 %	5.2 %	350	3.1	8.1	0.9 %	2.3 %	266	4.0	9.1	1.5 %	3.4 %
R2	5.1		0.7	5.7	0.5 %	4.6 %		1.3	6.4	0.4 %	1.8 %		2.3	7.4	0.9 %	2.8 %
R3	5.1		0.8	5.9	0.6 %	4.7 %		1.9	7.0	0.5 %	2.0 %		3.1	8.2	1.2 %	3.1 %
R4	5.1		0.3	5.3	0.2 %	4.3 %		0.9	6.0	0.3 %	1.7 %		1.8	6.9	0.7 %	2.6 %
R5	5.1		0.2	5.3	0.2 %	4.3 %		0.8	5.9	0.2 %	1.7 %		1.6	6.7	0.6 %	2.5 %
R6	5.1		1.0	6.1	0.8 %	4.9 %		2.5	7.6	0.7 %	2.2 %		3.9	9.0	1.5 %	3.4 %
R7	5.1		0.3	5.4	0.2 %	4.3 %		0.9	6.1	0.3 %	1.7 %		1.9	7.0	0.7 %	2.6 %
R8	5.1		0.3	5.4	0.2 %	4.3 %		0.9	6.0	0.3 %	1.7 %		1.9	6.9	0.7 %	2.6 %
R9	5.1		0.2	5.3	0.2 %	4.3 %		0.8	5.9	0.2 %	1.7 %		1.6	6.7	0.6 %	2.5 %
R10	5.1		0.3	5.4	0.3 %	4.3 %		1.2	6.3	0.4 %	1.8 %		2.0	7.0	0.7 %	2.6 %
R11	5.1		0.3	5.4	0.2 %	4.3 %		0.9	6.0	0.2 %	1.7 %		1.7	6.8	0.6 %	2.5 %
R12	5.3		1.2	6.5	0.9 %	5.2 %		3.6	8.9	1.0 %	2.5 %		6.2	11.5	2.3 %	4.3 %
R13	5.3		0.5	5.8	0.4 %	4.6 %		1.9	7.2	0.5 %	2.0 %		4.0	9.3	1.5 %	3.5 %
R14	5.3		0.8	6.1	0.7 %	4.9 %		2.3	7.6	0.7 %	2.2 %		3.8	9.1	1.4 %	3.4 %
R15	5.4		0.6	6.0	0.5 %	4.8 %		2.3	7.7	0.7 %	2.2 %		3.7	9.1	1.4 %	3.4 %
R16	5.4		0.8	6.2	0.7 %	5.0 %		2.6	8.0	0.7 %	2.3 %		4.6	10.0	1.7 %	3.8 %
R17	5.8		0.4	6.1	0.3 %	4.9 %		1.5	7.3	0.4 %	2.1 %		2.8	8.5	1.0 %	3.2 %
R18	5.8		0.4	6.1	0.3 %	4.9 %		1.7	7.5	0.5 %	2.1 %		3.0	8.8	1.1 %	3.3 %
R19	5.8		0.3	6.1	0.3 %	4.9 %		1.6	7.3	0.4 %	2.1 %		3.2	9.0	1.2 %	3.4 %
R20	5.3		1.4	6.7	1.1 %	5.4 %		3.8	9.1	1.1 %	2.6 %		5.7	11.0	2.1 %	4.1 %
R21	5.4		0.5	5.9	0.4 %	4.8 %		2.1	7.5	0.6 %	2.1 %		4.4	9.8	1.6 %	3.7 %
R22	5.4		0.7	6.1	0.6 %	4.9 %		2.4	7.8	0.7 %	2.2 %		4.7	10.1	1.8 %	3.8 %
R23	5.4		0.7	6.1	0.6 %	4.9 %		2.4	7.8	0.7 %	2.2 %		4.5	9.9	1.7 %	3.7 %
R24	5.0		0.2	5.3	0.2 %	4.2 %		1.0	6.0	0.3 %	1.7 %		1.6	6.7	0.6 %	2.5 %
R25	5.1		1.3	6.4	1.0 %	5.1 %		3.1	8.2	0.9 %	2.3 %		4.47	9.6	1.7 %	3.6 %

Location ID	Baseline air quality level (µg/m³)	Maximum 24 hour mean (99.18 <sup>th</sup> %ile)					Maximum 1-hour mean (99.73 <sup>th</sup> %ile)					Maximum 15-minute (99.9 <sup>th</sup> %ile)				
		EQS (µg/m³)	PC (µg/m³)	PEC (µg/m³)	PC/EQS (%)	PEC/EQS (%)	EQS (µg/m³)	PC (µg/m³)	PEC (µg/m³)	PC/EQS (%)	PEC/EQS (%)	EQS (µg/m³)	PC (µg/m³)	PEC (µg/m³)	PC/EQS (%)	PEC/EQS (%)
R26	5.1		3.7	8.8	2.9 %	7.0 %		7.8	12.9	2.2 %	3.7 %		8.7	13.8	3.3 %	5.2 %
R27	5.1		2.0	7.1	1.6 %	5.6 %		4.1	9.2	1.2 %	2.6 %		5.0	10.1	1.9 %	3.8 %
R28	5.1		0.9	5.9	0.7 %	4.7 %		2.0	7.1	0.6 %	2.0 %		3.5	8.6	1.3 %	3.2 %
R29	5.1		1.1	6.2	0.9 %	5.0 %		2.5	7.6	0.7 %	2.2 %		3.8	8.9	1.4 %	3.3 %
R30	5.1		2.2	7.3	1.8 %	5.8 %		3.8	8.9	1.1 %	2.5 %		5.1	10.2	1.9 %	3.8 %
R31	5.1		1.4	6.4	1.1 %	5.2 %		3.5	8.5	1.0 %	2.4 %		4.4	9.5	1.7 %	3.6 %
R32	5.1		0.8	6.0	0.7 %	4.8 %		2.3	7.4	0.6 %	2.1 %		3.3	8.4	1.2 %	3.2 %
R33	5.3		1.4	6.7	1.1 %	5.4 %		3.4	8.7	1.0 %	2.5 %		5.1	10.5	1.9 %	3.9 %
R34	5.3		1.6	6.9	1.3 %	5.5 %		3.7	9.1	1.1 %	2.6 %		6.4	11.7	2.4 %	4.4 %
R35	5.3		2.1	7.4	1.7 %	5.9 %		4.9	10.2	1.4 %	2.9 %		6.5	11.8	2.4 %	4.4 %
R36	5.3		2.4	7.7	1.9 %	6.1 %		5.4	10.7	1.5 %	3.1 %		7.1	12.4	2.7 %	4.7 %
R37	5.3		3.7	9.0	3.0 %	7.2 %		5.9	11.2	1.7 %	3.2 %		7.5	12.8	2.8 %	4.8 %
R38	5.3		3.7	9.0	2.9 %	7.2 %		5.5	10.8	1.6 %	3.1 %		7.4	12.7	2.8 %	4.8 %
R39	5.3		1.9	7.2	1.5 %	5.8 %		4.5	9.9	1.3 %	2.8 %		6.9	12.3	2.6 %	4.6 %
R40	5.3		2.8	8.1	2.2 %	6.5 %		6.5	11.9	1.9 %	3.4 %		7.7	13.1	2.9 %	4.9 %
R41	5.3		3.3	8.6	2.6 %	6.9 %		7.0	12.3	2.0 %	3.5 %		8.4	13.7	3.1 %	5.1 %
R42	5.4		2.6	8.0	2.1 %	6.4 %		5.8	11.2	1.7 %	3.2 %		7.5	12.9	2.8 %	4.8 %
R43	5.4		2.0	7.4	1.6 %	5.9 %		4.9	10.3	1.4 %	2.9 %		6.6	12.0	2.5 %	4.5 %
R44	5.4		0.9	6.3	0.7 %	5.0 %		3.1	8.5	0.9 %	2.4 %		4.8	10.2	1.8 %	3.8 %

**Table 4: Results of detailed assessment at sensitive human locations for annual mean and 24-hour mean (90.41<sup>st</sup>) percentile) PM<sub>10</sub> predicted concentrations**

Location ID	Annual mean						90.41 <sup>st</sup> percentile of 24-hour mean					
	Baseline air quality level (µg/m <sup>3</sup> )	EQS (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)	Baseline air quality level (µg/m <sup>3</sup> )	EQS (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)
R1	7.5	40	0.013	7.5	0.033 %	18.7 %	14.9	50	0.04	15.0	0.1 %	29.9 %
R2	7.5		0.003	7.5	0.008 %	18.7 %	14.9		0.012	14.9	0.0 %	29.9 %
R3	7.5		0.004	7.5	0.009 %	18.7 %	14.9		0.012	14.9	0.0 %	29.9 %
R4	7.5		0.002	7.5	0.006 %	18.7 %	15.0		0.007	15.0	0.0 %	29.9 %
R5	7.5		0.002	7.5	0.005 %	18.7 %	14.9		0.006	14.9	0.0 %	29.9 %
R6	7.5		0.008	7.5	0.020 %	18.8 %	15.0		0.020	15.0	0.0 %	30.0 %
R7	7.6		0.005	7.6	0.012 %	19.0 %	15.2		0.011	15.2	0.0 %	30.4 %
R8	7.6		0.005	7.6	0.011 %	19.0 %	15.2		0.010	15.2	0.0 %	30.4 %
R9	7.6		0.004	7.6	0.010 %	19.0 %	15.2		0.010	15.2	0.0 %	30.4 %
R10	7.5		0.005	7.5	0.013 %	18.7 %	14.9		0.013	14.9	0.0 %	29.9 %
R11	7.6		0.004	7.6	0.010 %	19.0 %	15.2		0.010	15.2	0.0 %	30.4 %
R12	7.8		0.016	7.9	0.040 %	19.7 %	15.7		0.052	15.8	0.1 %	31.5 %
R13	7.8		0.003	7.9	0.008 %	19.6 %	15.7		0.013	15.7	0.0 %	31.4 %
R14	8.1		0.006	8.1	0.016 %	20.3 %	16.2		0.026	16.2	0.1 %	32.4 %
R15	7.9		0.003	7.9	0.008 %	19.7 %	15.7		0.010	15.8	0.0 %	31.5 %
R16	7.9		0.008	7.9	0.019 %	19.7 %	15.7		0.027	15.8	0.1 %	31.6 %
R17	8.1		0.006	8.1	0.015 %	20.3 %	16.2		0.018	16.2	0.0 %	32.4 %
R18	8.0		0.006	8.0	0.015 %	20.0 %	16.0		0.018	16.0	0.0 %	32.0 %
R19	8.1		0.005	8.1	0.014 %	20.3 %	16.2		0.015	16.2	0.0 %	32.4 %
R20	7.8		0.025	7.8	0.063 %	19.6 %	15.6		0.073	15.7	0.1 %	31.3 %
R21	7.9		0.003	7.9	0.007 %	19.7 %	15.7		0.007	15.8	0.0 %	31.5 %
R22	7.9		0.004	7.9	0.011 %	19.7 %	15.7		0.016	15.8	0.0 %	31.5 %
R23	7.9		0.005	7.9	0.012 %	19.7 %	15.7		0.018	15.8	0.0 %	31.5 %
R24	7.4		0.002	7.4	0.005 %	18.6 %	14.9		0.007	14.9	0.0 %	29.7 %
R25	7.5		0.009	7.5	0.022 %	18.7 %	14.9		0.025	15.0	0.0 %	29.9 %
R26	7.5		0.011	7.5	0.027 %	18.7 %	14.9		0.034	15.0	0.1 %	29.9 %

Location ID	Annual mean						90.4 <sup>1st</sup> percentile of 24-hour mean					
	Baseline air quality level (µg/m <sup>3</sup> )	EQS (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)	Baseline air quality level (µg/m <sup>3</sup> )	EQS (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)
R27	7.5		0.008	7.5	0.020 %	18.7 %	14.9		0.029	15.0	0.1 %	29.9 %
R28	7.5		0.004	7.5	0.010 %	18.7 %	14.9		0.012	14.9	0.0 %	29.9 %
R29	7.5		0.006	7.5	0.015 %	18.7 %	14.9		0.021	14.9	0.0 %	29.9 %
R30	7.5		0.020	7.5	0.051 %	18.7 %	14.9		0.057	15.0	0.1 %	30.0 %
R31	7.5		0.015	7.5	0.037 %	18.7 %	14.9		0.035	15.0	0.1 %	29.9 %
R32	7.5		0.010	7.5	0.025 %	18.8 %	15.0		0.023	15.0	0.0 %	30.1 %
R33	8.1		0.012	8.1	0.029 %	20.3 %	16.2		0.051	16.2	0.1 %	32.5 %
R34	8.1		0.014	8.1	0.036 %	20.3 %	16.2		0.067	16.3	0.1 %	32.5 %
R35	8.1		0.017	8.1	0.041 %	20.3 %	16.2		0.072	16.3	0.1 %	32.5 %
R36	7.8		0.017	7.9	0.042 %	19.7 %	15.7		0.064	15.8	0.1 %	31.5 %
R37	7.8		0.020	7.9	0.050 %	19.7 %	15.7		0.067	15.8	0.1 %	31.5 %
R38	7.8		0.052	7.8	0.131 %	19.6 %	15.6		0.148	15.7	0.3 %	31.5 %
R39	7.8		0.030	7.8	0.076 %	19.6 %	15.6		0.081	15.7	0.2 %	31.3 %
R40	7.8		0.046	7.8	0.116 %	19.6 %	15.6		0.135	15.7	0.3 %	31.5 %
R41	7.8		0.059	7.9	0.149 %	19.6 %	15.6		0.169	15.8	0.3 %	31.5 %
R42	7.9		0.035	7.9	0.087 %	19.8 %	15.7		0.116	15.9	0.2 %	31.7 %
R43	7.9		0.013	7.9	0.033 %	19.7 %	15.7		0.049	15.8	0.1 %	31.6 %
R44	7.9		0.006	7.9	0.014 %	19.7 %	15.7		0.018	15.8	0.0 %	31.5 %

**Table 5: Results of detailed assessment at sensitive human locations for annual mean PM<sub>2.5</sub> predicted concentrations**

Location ID	Baseline air quality level (µg/m <sup>3</sup> )	Annual mean				
		EQS (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)
R1	5.1	25	0.013	5.1	0.053 %	20.3 %
R2	5.1		0.003	5.1	0.013 %	20.2 %
R3	5.1		0.004	5.1	0.015 %	20.2 %
R4	5.1		0.002	5.1	0.009 %	20.3 %
R5	5.1		0.002	5.1	0.009 %	20.2 %
R6	5.1		0.008	5.1	0.032 %	20.4 %
R7	5.1		0.005	5.1	0.019 %	20.4 %
R8	5.1		0.005	5.1	0.018 %	20.4 %
R9	5.2		0.004	5.2	0.016 %	20.8 %
R10	5.1		0.005	5.1	0.022 %	20.2 %
R11	5.1		0.004	5.1	0.017 %	20.4 %
R12	5.2		0.016	5.2	0.063 %	21.0 %
R13	5.2		0.003	5.2	0.013 %	20.9 %
R14	5.3		0.006	5.3	0.025 %	21.3 %
R15	5.3		0.003	5.3	0.012 %	21.2 %
R16	5.3		0.008	5.3	0.030 %	21.2 %
R17	5.4		0.006	5.4	0.025 %	21.6 %
R18	5.3		0.006	5.3	0.025 %	21.2 %
R19	5.4		0.005	5.4	0.022 %	21.6 %
R20	5.2		0.025	5.3	0.101 %	21.0 %
R21	5.3		0.003	5.3	0.010 %	21.2 %
R22	5.3		0.004	5.3	0.018 %	21.2 %
R23	5.3		0.005	5.3	0.019 %	21.2 %
R24	5.0		0.002	5.0	0.007 %	20.2 %
R25	5.1		0.009	5.1	0.036 %	20.3 %
R26	5.1		0.011	5.1	0.043 %	20.3 %
R27	5.1		0.008	5.1	0.032 %	20.3 %

Location ID	Baseline air quality level ( $\mu\text{g}/\text{m}^3$ )	Annual mean				
		EQS ( $\mu\text{g}/\text{m}^3$ )	PC ( $\mu\text{g}/\text{m}^3$ )	PEC ( $\mu\text{g}/\text{m}^3$ )	PC/EQS (%)	PEC/EQS (%)
R28	5.1		0.004	5.1	0.015 %	20.2 %
R29	5.1		0.006	5.1	0.024 %	20.2 %
R30	5.1		0.020	5.1	0.082 %	20.3 %
R31	5.1		0.015	5.1	0.059 %	20.3 %
R32	5.1		0.010	5.1	0.040 %	20.4 %
R33	5.3		0.012	5.3	0.046 %	21.3 %
R34	5.3		0.014	5.3	0.058 %	21.3 %
R35	5.3		0.017	5.3	0.066 %	21.3 %
R36	5.2		0.017	5.2	0.067 %	21.0 %
R37	5.2		0.020	5.3	0.080 %	21.0 %
R38	5.2		0.052	5.3	0.209 %	21.1 %
R39	5.2		0.030	5.3	0.121 %	21.1 %
R40	5.2		0.046	5.3	0.185 %	21.1 %
R41	5.2		0.059	5.3	0.238 %	21.2 %
R42	5.3		0.035	5.3	0.139 %	21.3 %
R43	5.3		0.013	5.3	0.053 %	21.2 %
R44	5.3		0.006	5.3	0.023 %	21.2 %

**Table 6: Results of detailed assessment at sensitive human locations for annual mean and maximum 1-hour mean ammonia predicted concentrations**

Location ID	Annual mean						Maximum 1-hour mean					
	Baseline air quality level (µg/m³)	EQS (µg/m³)	PC (µg/m³)	PEC (µg/m³)	PC/EQS (%)	PEC/EQS (%)	Baseline air quality level (µg/m³)	EQS (µg/m³)	PC (µg/m³)	PEC (µg/m³)	PC/EQS (%)	PEC/EQS (%)
R1	1.5	180	0.10	1.6	0.05 %	0.9 %	3.0	2500	1.2	4.2	0.05 %	0.2 %
R2	1.5		0.02	1.5	0.01 %	0.9 %	3.0		0.7	3.8	0.03 %	0.2 %
R3	1.5		0.02	1.5	0.01 %	0.9 %	3.0		1.1	4.1	0.04 %	0.2 %
R4	1.5		0.01	1.5	0.01 %	0.9 %	3.0		0.5	3.6	0.02 %	0.1 %
R5	1.5		0.01	1.5	0.01 %	0.9 %	3.0		0.5	3.6	0.02 %	0.1 %
R6	1.5		0.05	1.6	0.03 %	0.9 %	3.0		1.2	4.2	0.05 %	0.2 %
R7	1.5		0.03	1.6	0.01 %	0.9 %	3.1		0.5	3.6	0.02 %	0.1 %
R8	1.5		0.02	1.6	0.01 %	0.9 %	3.1		0.6	3.7	0.02 %	0.1 %
R9	1.5		0.02	1.6	0.01 %	0.9 %	3.1		0.5	3.5	0.02 %	0.1 %
R10	1.5		0.03	1.6	0.02 %	0.9 %	3.0		0.6	3.7	0.03 %	0.1 %
R11	1.5		0.02	1.6	0.01 %	0.9 %	3.1		0.5	3.6	0.02 %	0.1 %
R12	1.5		0.06	1.6	0.03 %	0.9 %	3.1		1.5	4.5	0.06 %	0.2 %
R13	1.5		0.01	1.6	0.01 %	0.9 %	3.1		1.0	4.1	0.04 %	0.2 %
R14	2.7		0.02	2.7	0.01 %	1.5 %	5.3		1.1	6.5	0.04 %	0.3 %
R15	2.7		0.01	2.7	0.01 %	1.5 %	5.3		1.3	6.7	0.05 %	0.3 %
R16	2.7		0.03	2.7	0.02 %	1.5 %	5.3		1.2	6.5	0.05 %	0.3 %
R17	1.5		0.02	1.6	0.01 %	0.9 %	3.1		0.8	3.9	0.03 %	0.2 %
R18	1.5		0.02	1.6	0.01 %	0.9 %	3.1		0.8	3.9	0.03 %	0.2 %
R19	1.5		0.02	1.6	0.01 %	0.9 %	3.1		0.8	3.8	0.03 %	0.2 %
R20	1.5		0.09	1.6	0.05 %	0.9 %	3.1		1.7	4.8	0.07 %	0.2 %
R21	2.7		0.01	2.7	0.01 %	1.5 %	5.3		1.3	6.7	0.05 %	0.3 %
R22	2.7		0.02	2.7	0.01 %	1.5 %	5.3		1.2	6.6	0.05 %	0.3 %
R23	2.7		0.02	2.7	0.01 %	1.5 %	5.3		1.2	6.5	0.05 %	0.3 %
R24	1.2		0.01	1.2	0.01 %	0.6 %	2.3		0.4	2.7	0.02 %	0.1 %
R25	1.5		0.06	1.6	0.03 %	0.9 %	3.0		1.31	4.3	0.05 %	0.2 %
R26	1.5		0.08	1.6	0.04 %	0.9 %	3.0		3.2	6.2	0.13 %	0.2 %

Location ID	Annual mean						Maximum 1-hour mean					
	Baseline air quality level (µg/m³)	EQS (µg/m³)	PC (µg/m³)	PEC (µg/m³)	PC/EQS (%)	PEC/EQS (%)	Baseline air quality level (µg/m³)	EQS (µg/m³)	PC (µg/m³)	PEC (µg/m³)	PC/EQS (%)	PEC/EQS (%)
R27	1.5		0.06	1.6	0.03 %	0.9 %	3.0		1.8	4.9	0.07 %	0.2 %
R28	1.5		0.02	1.5	0.01 %	0.9 %	3.0		1.2	4.2	0.05 %	0.2 %
R29	1.5		0.04	1.6	0.02 %	0.9 %	3.0		1.3	4.3	0.05 %	0.2 %
R30	1.5		0.16	1.7	0.09 %	0.9 %	3.0		1.5	4.6	0.06 %	0.2 %
R31	1.5		0.11	1.6	0.06 %	0.9 %	3.0		1.6	4.7	0.07 %	0.2 %
R32	1.5		0.07	1.6	0.04 %	0.9 %	3.1		1.1	4.2	0.04 %	0.2 %
R33	2.7		0.04	2.7	0.02 %	1.5 %	5.3		1.6	7.0	0.07 %	0.3 %
R34	2.7		0.05	2.7	0.03 %	1.5 %	5.3		1.8	7.2	0.07 %	0.3 %
R35	2.7		0.06	2.7	0.03 %	1.5 %	5.3		2.0	7.3	0.08 %	0.3 %
R36	1.5		0.06	1.6	0.03 %	0.9 %	3.1		2.1	5.2	0.08 %	0.2 %
R37	1.5		0.08	1.6	0.04 %	0.9 %	3.1		2.4	5.5	0.10 %	0.2 %
R38	1.5		0.19	1.7	0.11 %	1.0 %	3.1		2.2	5.2	0.09 %	0.2 %
R39	1.5		0.11	1.7	0.06 %	0.9 %	3.1		1.8	4.9	0.07 %	0.2 %
R40	1.5		0.17	1.7	0.10 %	1.0 %	3.1		2.4	5.5	0.10 %	0.2 %
R41	1.5		0.22	1.8	0.12 %	1.0 %	3.1		2.6	5.7	0.10 %	0.2 %
R42	2.7		0.13	2.8	0.07 %	1.6 %	5.3		2.8	8.1	0.11 %	0.3 %
R43	2.7		0.05	2.7	0.03 %	1.5 %	5.3		2.0	7.3	0.08 %	0.3 %
R44	2.7		0.02	2.7	0.01 %	1.5 %	5.3		1.7	7.0	0.07 %	0.3 %



## **2. Diesel Generator Emissions – Results at Ecological Locations**

**Table 7: Results of detailed assessment at protected conservation sites for annual mean NOx concentrations**

Location ID	Ecological site	Pollutant	EQS (µg/m <sup>3</sup> )	Baseline air quality level (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)
H1	Ancient Woodland (ID 1413096)	Oxides of nitrogen (annual mean)	30	4.6	0.35	4.9	1.170 %	16.5 %
H2	Great Dunnow Wood Ancient Woodland (ID 1102670)			4.7	0.20	4.9	0.676 %	16.2 %
H3a	North Pennine Dales Meadows SAC			4.6	0.11	4.7	0.382 %	15.7 %
H3b				4.7	0.09	4.8	0.293 %	15.9 %
H3c				4.7	0.07	4.7	0.218 %	15.8 %
H4a	Waddington Fell Road, Roadside Verges BHS			4.7	0.27	6.6	0.889 %	22.0 %
H4b				4.7	0.28	6.6	0.937 %	22.1 %
H5	Bradford Fell, Easington Fell and Harrop Fell BHS			6.5	0.10	6.6	0.35 %	21.9 %
H6	Waddington Fell and Browsholme Moor BHS			6.5	0.09	6.6	0.30 %	21.9 %
H7	Waddington Fell and Browsholme Moor BHS			7.5	0.21	7.7	0.69 %	25.7 %
H8	Waddington Fell and Browsholme Moor BHS			4.9	0.06	5.0	0.19 %	16.5 %
H9	Bonstone Brook Pastures BHS			4.7	0.13	4.8	0.432 %	16.1 %
H10a	Gibb's Wood and Bonestone Wood BHS			4.7	0.25	5.0	0.847 %	16.5 %
H10b				4.7	0.13	4.8	0.444 %	16.0 %
H11a	Ashnott Wood BHS and Ashnott Wood Ancient Woodland (ID 1102518)			4.7	0.08	4.8	0.272 %	16.0 %
H11b				4.7	0.08	4.8	0.283 %	16.0 %
H11c				4.7	0.08	4.8	0.280 %	16.0 %
H12	Crag House Roadside Verges BHS	4.7	0.08	4.7	0.259 %	15.8 %		
H13	Ashnott Meadow BHS	4.7	0.06	4.8	0.206 %	15.9 %		
H14a	Birkett Fell, Hodder Bank Fell and Mosswaite Fell	4.6	0.14	4.7	0.470 %	15.8 %		
H14b		4.6	0.12	4.8	0.387 %	15.9 %		
H15a	Feazer Wood BHS and Ancient Woodland (ID 1413082)	5.6	0.09	5.7	0.30 %	19.1 %		
H15b		5.6	0.08	5.7	0.28 %	19.1 %		
H16a	Hospital Wood BHS and Hospital Wood Ancient Woodland (ID 1102662)	5.6	0.09	5.7	0.29 %	19.1 %		
H16b		6.0	0.08	6.1	0.27 %	20.3 %		
H17	Cross Lane Roadside Verges BHS	5.5	0.09	5.6	0.29 %	18.7 %		

Location ID	Ecological site	Pollutant	EQS (µg/m <sup>3</sup> )	Baseline air quality level (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)
H18a	Marsdens Wood Ancient Woodland (ID 1102521) and Braddup Wood South BHS			5.5	0.09	5.6	0.29 %	18.7 %
H18b				5.5	0.08	5.6	0.28 %	18.7 %
H19a	Braddup Wood North BHS/Braddup Wood Ancient Woodland (ID 11102520)			5.4	0.10	5.5	0.32 %	18.4 %
H19b				5.4	0.10	5.5	0.32 %	18.4 %
H19c				5.3	0.12	5.4	0.41 %	18.0 %
H20	Moor Piece BHS			5.4	0.07	5.5	0.24 %	18.3 %
H21	Ancient Woodland (ID 1413085)			5.2	0.04	5.2	0.14 %	17.4 %
H22	Newton North Roadside Verges			4.6	0.26	4.9	0.88 %	16.3 %
H23	Newton West Roadside Verges			5.2	4.57	9.7	15.23 %	32.4 %
H24	Gamble Hole Farm Pasture			4.6	1.53	6.1	5.10 %	20.4 %
H25a	Bowland Fells SPA and Bowland Fells SSSI			5.4	0.024	5.4	0.08 %	18.1 %
H25b				5.0	0.030	5.0	0.10 %	16.6 %
H25c				4.7	0.038	4.7	0.13 %	15.7 %
H25d				4.6	0.047	4.7	0.16 %	15.6 %
H25e				4.4	0.060	4.5	0.20 %	14.9 %
H25f		4.3	0.077	4.4	0.26 %	14.6 %		
H25g		4.3	0.109	4.4	0.36 %	14.5 %		

**Table 8: Results of detailed assessment at protected conservation sites for maximum 24-hour mean NO<sub>x</sub> concentrations**

Location ID	Ecological site	Pollutant	EQS (µg/m <sup>3</sup> )	Baseline air quality level (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)
H1	Ancient Woodland (ID 1413096)	Oxides of nitrogen (daily mean)	75	9.2	5.0	14.2	6.7 %	18.9 %
H2	Great Dunnow Wood Ancient Woodland (ID 1102670)			9.3	1.3	10.6	1.8 %	14.2 %
H3a	North Pennine Dales Meadows SAC			9.2	1.0	10.1	1.3 %	13.5 %
H3b				9.3	0.6	10.0	0.9 %	13.3 %
H3c				9.3	0.5	9.8	0.7 %	13.1 %
H4a	Waddington Fell Road, Roadside Verges BHS			9.4	2.0	14.7	2.7 %	19.6 %
H4b				9.4	1.9	14.6	2.5 %	19.4 %
H5	Bradford Fell, Easington Fell and Harrop Fell BHS			12.9	0.7	13.7	1.0 %	18.2 %
H6	Waddington Fell and Browsholme Moor BHS			12.9	0.7	13.7	1.0 %	18.2 %
H7	Waddington Fell and Browsholme Moor BHS			15.0	1.3	16.3	1.7 %	21.7 %
H8	Waddington Fell and Browsholme Moor BHS			9.8	0.7	10.5	1.0 %	14.0 %
H9	Bonstone Brook Pastures BHS			9.4	2.1	11.5	2.8 %	15.4 %
H10a	Gibb's Wood and Bonestone Wood BHS			9.4	3.6	13.0	4.7 %	17.3 %
H10b				9.3	2.8	12.1	3.8 %	16.2 %
H11a	Ashnott Wood BHS and Ashnott Wood Ancient Woodland (ID 1102518)			9.4	1.5	10.9	1.9 %	14.5 %
H11b				9.4	1.2	10.6	1.6 %	14.2 %
H11c				9.4	1.2	10.6	1.6 %	14.2 %
H12	Crag House Roadside Verges BHS			9.3	1.2	10.5	1.6 %	14.0 %
H13	Ashnott Meadow BHS			9.4	1.1	10.5	1.4 %	14.0 %
H14a	Birkett Fell, Hodder Bank Fell and Mosswaite Fell			9.2	2.5	11.7	3.4 %	15.6 %
H14b		9.3	1.8	11.1	2.4 %	14.8 %		
H15a	Feazer Wood BHS and Ancient Woodland (ID 1413082)	11.3	0.5	11.8	0.7 %	15.7 %		
H15b		11.3	0.6	11.8	0.8 %	15.8 %		
H16a	Hospital Wood BHS and Hospital Wood Ancient Woodland (ID 1102662)	11.3	0.6	11.9	0.8 %	15.9 %		
H16b		12.0	1.1	13.1	1.4 %	17.4 %		
H17	Cross Lane Roadside Verges BHS	11.0	1.4	12.4	1.8 %	16.5 %		
H18a		11.0	1.3	12.4	1.8 %	16.5 %		

Location ID	Ecological site	Pollutant	EQS (µg/m <sup>3</sup> )	Baseline air quality level (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)
H18b	Marsdens Wood Ancient Woodland (ID 1102521) and			11.0	2.0	13.0	2.6 %	17.3 %
H19a	Braddup Wood North BHS/Braddup Wood Ancient Woodland (ID 11102520)			10.9	1.2	12.1	1.7 %	16.1 %
H19b				10.9	3.2	14.0	4.2 %	18.7 %
H19c				10.6	2.5	13.0	3.3 %	17.4 %
H20				Moor Piece BHS	10.9	1.6	12.4	2.1 %
H21	Ancient Woodland (ID 1413085)			10.4	1.2	11.6	1.6 %	15.4 %
H22	Newton North Roadside Verges			9.3	1.7	10.9	2.2 %	14.6 %
H23	Newton West Roadside Verges			10.3	26.7	37.0	35.6 %	49.3 %
H24	Gamble Hole Farm Pasture			9.2	15.3	24.4	20.3 %	32.5 %
H25a	Bowland Fells SPA and Bowland Fells SSSI			10.8	0.4	11.21	0.5 %	15.0 %
H25b				9.9	0.5	10.46	0.7 %	13.9 %
H25c				9.4	0.9	10.22	1.2 %	13.6 %
H25d				9.3	1.1	10.35	1.4 %	13.8 %
H25e				8.8	1.1	9.94	1.5 %	13.2 %
H25f				8.6	1.1	9.67	1.5 %	12.9 %
H25g				8.5	1.3	9.83	1.8 %	13.1 %

**Table 9: Results of detailed assessment at protected conservation sites for annual SO<sub>2</sub> concentrations**

Location ID	Ecological site	Pollutant	EQS (µg/m <sup>3</sup> )	Baseline air quality level (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)
H1	Ancient Woodland (ID 1413096)	Sulphur dioxide (annual mean)	10	2.5	0.20	2.7	2.0 %	27.1 %
H2	Great Dunnow Wood Ancient Woodland (ID 1102670)			2.5	0.12	2.7	1.2 %	26.5 %
H3a	North Pennine Dales Meadows SAC			2.4	0.07	2.4	0.7 %	24.4 %
H3b				2.4	0.05	2.5	0.5 %	24.9 %
H3c				2.6	0.04	2.6	0.4 %	26.5 %
H4a	Waddington Fell Road, Roadside Verges BHS			2.5	0.16	2.7	1.6 %	27.0 %
H4b				2.5	0.17	2.7	1.7 %	27.1 %
H5	Bradford Fell, Easington Fell and Harrop Fell BHS			2.6	0.07	2.6	0.7 %	26.3 %
H6	Waddington Fell and Browsholme Moor BHS			2.6	0.06	2.6	0.6 %	26.2 %
H7	Waddington Fell and Browsholme Moor BHS			2.7	0.12	2.8	1.2 %	27.8 %
H8	Waddington Fell and Browsholme Moor BHS			2.6	0.03	2.6	0.3 %	26.1 %
H9	Bonstone Brook Pastures BHS			2.6	0.09	2.6	0.9 %	26.4 %
H10a	Gibb's Wood and Bonestone Wood BHS			2.6	0.21	2.8	2.1 %	27.6 %
H10b	Gibb's Wood and Bonestone Wood BHS			2.5	0.09	2.6	0.9 %	26.2 %
H11a	Ashnott Wood BHS and Ashnott Wood Ancient Woodland (ID 1102518)			2.6	0.05	2.6	0.5 %	26.0 %
H11b				2.6	0.06	2.6	0.6 %	26.1 %
H11c				2.6	0.06	2.6	0.6 %	26.1 %
H12	Crag House Roadside Verges BHS	2.5	0.05	2.6	0.5 %	25.9 %		
H13	Ashnott Meadow BHS	2.6	0.04	2.6	0.4 %	25.9 %		
H14a	Birkett Fell, Hodder Bank Fell and Mosswaite Fell	2.5	0.08	2.6	0.8 %	26.0 %		
H14b		2.5	0.07	2.6	0.7 %	26.0 %		
H15a	Feazer Wood BHS and Ancient Woodland (ID 1413082)	2.9	0.05	2.9	0.5 %	29.3 %		
H15b		2.9	0.05	2.9	0.5 %	29.3 %		
H16a	Hospital Wood BHS and Hospital Wood Ancient Woodland (ID 1102662)	2.9	0.05	2.9	0.5 %	29.3 %		
H16b		2.9	0.05	2.9	0.5 %	29.5 %		
H17	Cross Lane Roadside Verges BHS	2.7	0.05	2.7	0.5 %	27.1 %		

Location ID	Ecological site	Pollutant	EQS (µg/m <sup>3</sup> )	Baseline air quality level (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)
H18a	Marsdens Wood Ancient Woodland (ID 1102521) and Braddup Wood South BHS			2.7	0.05	2.7	0.5 %	27.1 %
H18b				2.7	0.05	2.7	0.5 %	27.1 %
H19a	Braddup Wood North BHS/Braddup Wood Ancient Woodland (ID 11102520)			2.7	0.05	2.7	0.5 %	27.0 %
H19b				2.7	0.05	2.7	0.5 %	27.0 %
H19c				2.6	0.07	2.7	0.7 %	27.1 %
H20	Moor Piece BHS			2.7	0.04	2.7	0.4 %	26.9 %
H21	Ancient Woodland (ID 1413085)			2.6	0.02	2.6	0.2 %	26.4 %
H22	Newton North Roadside Verges			2.5	0.16	2.7	1.6 %	27.0 %
H23	Newton West Roadside Verges			2.5	2.51	5.0	25.1 %	50.5 %
H24	Gamble Hole Farm Pasture			2.5	0.85	3.4	8.5 %	33.6 %
H25a	Bowland Fells SPA and Bowland Fells SSSI			2.3	0.01	2.3	0.1 %	22.7 %
H25b				2.3	0.02	2.3	0.2 %	23.3 %
H25c				2.3	0.02	2.3	0.2 %	23.0 %
H25d				2.3	0.03	2.3	0.3 %	23.1 %
H25e				2.1	0.04	2.2	0.4 %	21.6 %
H25f		2.3	0.05	2.4	0.5 %	23.9 %		
H25g		2.3	0.06	2.4	0.6 %	23.9 %		

**Table 10: Results of detailed assessment at protected conservation sites for annual mean NH<sub>3</sub> concentrations**

Location ID	Ecological site	Pollutant	EQS (µg/m <sup>3</sup> )	Baseline air quality level (µg/m <sup>3</sup> )	PC (µg/m <sup>3</sup> )	PEC (µg/m <sup>3</sup> )	PC/EQS (%)	PEC/EQS (%)
H1	Ancient Woodland (ID 1413096)	Ammonia (annual mean)	1	1.2	0.07	1.2	6.6 %	122 %
H2	Great Dunnow Wood Ancient Woodland (ID 1102670)			1.6	0.04	1.7	4.1 %	166 %
H3a	North Pennine Dales Meadows SAC		3	1.6	0.02	1.6	0.8 %	164 %
H3b				1.6	0.02	1.6	0.6 %	164 %
H3c				1.6	0.01	1.6	0.4 %	163 %
H4a	Waddington Fell Road, Roadside Verges BHS		1	1.5	0.05	1.6	5.4 %	159 %
H4b				1.5	0.06	1.6	5.7 %	160 %
H5	Bradford Fell, Easington Fell and Harrop Fell BHS			1.5	0.02	1.6	2.3 %	156 %
H6	Waddington Fell and Browsholme Moor BHS			1.5	0.02	1.6	1.9 %	156 %
H7	Waddington Fell and Browsholme Moor BHS			1.5	0.04	1.6	3.9 %	158 %
H8	Waddington Fell and Browsholme Moor BHS			1.5	0.01	1.6	1.2 %	155 %
H9	Bonstone Brook Pastures BHS			1.5	0.03	1.6	3.0 %	155 %
H10a	Gibb's Wood and Bonestone Wood BHS			1.5	0.07	1.6	7.1 %	159 %
H10b				1.5	0.03	1.5	3.0 %	155 %
H11a	Ashnott Wood BHS and Ashnott Wood Ancient Woodland (ID 1102518)			1.5	0.02	1.5	1.8 %	154 %
H11b				1.5	0.02	1.5	2.0 %	154 %
H11c				1.5	0.02	1.5	2.0 %	154 %
H12	Crag House Roadside Verges BHS			1.5	0.02	1.5	1.8 %	154 %
H13	Ashnott Meadow BHS			1.5	0.01	1.5	1.4 %	153 %
H14a	Birkett Fell, Hodder Bank Fell and Mosswaite Fell			1.5	0.03	1.5	2.7 %	155 %
H14b				1.5	0.02	1.5	2.3 %	154 %
H15a	Feazer Wood BHS and Ancient Woodland (ID 1413082)			1.5	0.02	1.6	1.7 %	156 %
H15b				1.5	0.02	1.6	1.6 %	156 %
H16a	Hospital Wood BHS and Hospital Wood Ancient Woodland ID 1102662)	1.5		0.02	1.6	1.6 %	156 %	
H16b		2.7		0.01	2.7	1.5 %	268 %	



Location ID	Ecological site	Pollutant	EQS ( $\mu\text{g}/\text{m}^3$ )	Baseline air quality level ( $\mu\text{g}/\text{m}^3$ )	PC ( $\mu\text{g}/\text{m}^3$ )	PEC ( $\mu\text{g}/\text{m}^3$ )	PC/EQS (%)	PEC/EQS (%)
H17	Cross Lane Roadside Verges BHS		3	2.7	0.02	2.7	1.6 %	269 %
H18a	Marsdens Wood Ancient Woodland (ID 1102521) and Braddup Wood South BHS			2.7	0.02	2.7	1.6 %	269 %
H18b				2.7	0.02	2.7	1.6 %	269 %
H19a	Braddup Wood North BHS/Braddup Wood Ancient Woodland (ID 11102520)			2.3	0.02	2.3	1.8 %	230 %
H19b				2.3	0.02	2.3	1.8 %	230 %
H19c				1.5	0.02	1.6	2.3 %	156 %
H20	Moor Piece BHS			2.3	0.01	2.3	1.4 %	229 %
H21	Ancient Woodland (ID 1413085)			2.3	0.01	2.3	0.8 %	229 %
H22	Newton North Roadside Verges			1.2	0.05	1.2	5.3 %	120 %
H23	Newton West Roadside Verges			1.2	0.83	2.0	82.5 %	198 %
H24	Gamble Hole Farm Pasture			1.2	0.28	1.4	27.9 %	143 %
H25a	Bowland Fells SPA and Bowland Fells SSSI			1.6	0.00	1.6	0.2 %	53 %
H25b				1.6	0.01	1.6	0.2 %	53 %
H25c				1.6	0.01	1.6	0.3 %	53 %
H25d				1.4	0.01	1.4	0.3 %	46 %
H25e				1.4	0.01	1.4	0.4 %	46 %
H25f				1.4	0.02	1.4	0.5 %	47 %
H25g				1.0	0.02	1.0	0.7 %	34 %

### **3. Diesel Generator Emissions – Results at Ecological Locations, Acid and Nitrogen Deposition**

**Table 11: Modelled acid deposition at protected conservation areas**

Location ID	Ecological site	Vegetation Type	Critical Load (CL) (kEqH+/ha-year)			Acid Deposition (kEqH+/ha/year)					
			CLMaxS	CLMinN	CLMaxN	Existing Deposition (N)	Existing Deposition (S)	PC	PEC	PC/CL (%)	PEC/CL (%)
H1	Ancient Woodland (ID 1413096)	Tall	3.08	0.357	3.44	2.5	0.4	0.089	3.0	2.6 %	88 %
H2	Great Dunnow Wood Ancient Woodland (ID 1102670)	Tall	3.29	0.36	3.65	2.7	0.4	0.054	3.1	1.5 %	85 %
H3a	North Pennine Dales Meadows SAC	Short	1.60	0.40	2.10	1.900	0.330	0.0174	2.247	0.8 %	107 %
H3b		Short	1.60	0.40	2.10	1.900	0.330	0.013	2.2	0.6 %	107 %
H3c		Short	1.60	0.40	2.10	1.900	0.330	0.010	2.2	0.5 %	107 %
H4a	Waddington Fell Road, Roadside Verges BHS	Short	4.00	1.07	5.07	1.8	0.3	0.041	2.1	0.8 %	41 %
H4b		Short	4.00	1.07	5.07	1.8	0.3	0.043	2.1	0.8 %	41 %
H5	Bradford Fell, Easington Fell and Harrop Fell BHS	Short	0.47	0.86	1.33	1.8	0.3	0.030	2.1	2.3 %	157 %
H6	Waddington Fell and Browsholme Moor BHS	Short	0.52	0.32	0.84	1.8	0.3	0.014	2.1	1.6 %	246 %
H7	Waddington Fell and Browsholme Moor BHS	Short	0.45	0.32	0.77	1.8	0.3	0.020	2.1	2.6 %	267 %
H8	Waddington Fell and Browsholme Moor BHS	Short	0.52	0.32	0.84	1.8	0.3	0.010	2.1	1.2 %	245 %
H9	Bonstone Brook Pastures BHS	Short	0.46	0.58	1.04	1.7	0.3	0.023	2.0	2.2 %	190 %
H10a	Gibb's Wood and Bonestone Wood BHS	Tall	1.68	0.50	2.18	2.4	0.3	0.092	2.8	4.2 %	129 %
H10b		Tall	2.92	0.36	3.27	2.4	0.3	0.039	2.8	1.2 %	84 %
H11a	Ashnott Wood BHS and Ashnott Wood Ancient Woodland (ID 1102518)	Tall	1.68	0.50	2.18	2.4	0.3	0.023	2.7	1.1 %	126 %
H11b		Tall	1.68	0.50	2.18	2.4	0.3	0.026	2.7	1.2 %	126 %

Location ID	Ecological site	Vegetation Type	Critical Load (CL) (kEqH+/ha-year)			Acid Deposition (kEqH+/ha/year)					
			CLMaxS	CLMinN	CLMaxN	Existing Deposition (N)	Existing Deposition (S)	PC	PEC	PC/CL (%)	PEC/CL (%)
H11c		Tall	1.68	0.50	2.18	2.4	0.3	0.026	2.7	1.2 %	126 %
H12	Crag House Roadside Verges BHS	Short	4.00	1.21	5.21	1.7	0.3	0.014	2.0	0.3 %	38 %
H13	Ashnott Meadow BHS	Tall	2.91	0.36	3.27	2.5	0.4	0.018	2.9	0.5 %	89 %
H14a	Birkett Fell, Hodder Bank Fell and Mosswaite Fell	Short	0.49	0.32	0.81	1.7	0.3	0.021	2.0	2.6 %	244 %
H14b		Short	0.49	0.32	0.78	1.7	0.3	0.018	2.0	2.2 %	252 %
H15a	Feazer Wood BHS and Ancient Woodland (ID 1413082)	Tall	2.91	0.36	3.27	2.5	0.4	0.023	2.9	0.7 %	89 %
H15b		Tall	2.91	0.36	3.27	2.5	0.4	0.021	2.9	0.6 %	89 %
H16a	Hospital Wood BHS and Hospital Wood Ancient Woodland ID 1102662)	Tall	2.91	0.36	3.27	2.5	0.4	0.022	2.9	0.7 %	89 %
H16b		Tall	2.74	0.36	3.10	3.0	0.3	0.020	3.3	0.6 %	107 %
H17	Cross Lane Roadside Verges BHS	Short	4.00	1.07	5.07	1.9	0.3	0.015	2.2	0.3 %	44 %
H18a	Marsdens Wood Ancient Woodland (ID 1102521) and Braddup Wood South BHS	Tall	2.75	0.36	3.11	3.0	0.3	0.021	3.3	0.7 %	107 %
H18b		Tall	2.75	0.36	3.11	3.0	0.3	0.021	3.3	0.7 %	107 %
H19a	Braddup Wood North BHS/Braddup Wood Ancient Woodland (ID 11102520)	Tall	1.45	0.50	1.95	2.8	0.3	0.024	3.1	1.2 %	157 %
H19b		Tall	1.45	0.50	1.95	2.8	0.3	0.024	3.1	1.2 %	157 %
H19c		Tall	1.45	0.50	1.95	2.8	0.3	0.031	3.1	1.6 %	158 %
H20	Moor Piece BHS	Short	0.39	0.32	0.71	1.8	0.3	0.010	2.1	1.5 %	297 %
		Tall	1.45	0.50	1.95	2.8	0.3	0.018	3.1	0.9 %	157 %
H21	Ancient Woodland (ID 1413085)	Tall	1.59	0.50	2.09	2.4	0.3	0.011	2.7	0.5 %	131 %
H22	Newton North Roadside Verges	Short	4.00	1.07	5.07	1.9	0.4	0.040	2.3	0.8 %	45 %

Location ID	Ecological site	Vegetation Type	Critical Load (CL) (kEqH+/ha-year)			Acid Deposition (kEqH+/ha/year)					
			CLMaxS	CLMinN	CLMaxN	Existing Deposition (N)	Existing Deposition (S)	PC	PEC	PC/CL (%)	PEC/CL (%)
H23	Newton West Roadside Verges	Short	4.00	1.07	5.07	1.9	0.4	0.634	2.9	12.5 %	56 %
H24	Gamble Hole Farm Pasture	Short	Not sensitive to acid			1.9	0.4	0.214	2.4	N/A	N/A
H25a	Bowland Fells SPA and Bowland Fells SSSI	Short	0.50	0.90	1.30	1.8	0.3	0.004	2.1	0.3 %	162 %
H25b		Short	0.50	0.90	1.30	1.8	0.3	0.005	2.1	0.4 %	162 %
H25c		Short	0.50	0.90	1.30	1.8	0.3	0.006	2.1	0.5 %	162 %
H25d		Short	1.60	0.70	2.40	2.0	0.4	0.007	2.4	0.3 %	100 %
H25e		Short	0.60	0.60	1.30	2.0	0.4	0.009	2.4	0.7 %	185 %
H25f		Short	0.60	0.60	1.30	2.0	0.4	0.012	2.4	0.9 %	186 %
H25g		Short	0.70	0.60	1.40	2.0	0.4	0.016	2.4	1.2 %	173 %

**Table 12: Modelled nitrogen deposition at protected conservation areas**

Location ID	Ecological site	Vegetation Type	Critical Load (CL) (kEqH+/ha-year) (CLMaxN)	Nitrogen Deposition (kgN/ha/year)				
				Existing Deposition	PC	PEC	PC/CL ( %)	PEC/CL ( %)
H1	Ancient Woodland (ID 1413096)	Tall	10	35.1	0.585	35.7	5.8 %	357 %
H2	Great Dunnaw Wood Ancient Woodland (ID 1102670)	Tall	10	37.2	0.359	37.6	3.6 %	376 %
H3a	North Pennine Dales Meadows SAC	Short	10	26.6	0.131	26.7	1.3 %	267 %
H3b		Short	10	26.6	0.099	26.7	1.0 %	267 %
H3c		Short	10	26.6	0.074	26.7	0.7 %	267 %
H4a	Waddington Fell Road, Roadside Verges BHS	Short	20	24.5	0.307	24.8	1.5 %	124 %
H4b		Short	20	24.5	0.323	24.8	1.6 %	124 %
H5	Bradford Fell, Easington Fell and Harrop Fell BHS	Short	10	24.5	0.128	24.6	1.3 %	246 %
H6	Waddington Fell and Browsholme Moor BHS	Short	10	24.5	0.109	24.6	1.1 %	246 %
H7	Waddington Fell and Browsholme Moor BHS	Short	10	24.5	0.224	24.7	2.2 %	247 %
H8	Waddington Fell and Browsholme Moor BHS	Short	10	23.4	0.171	23.6	1.7 %	236 %
H9	Bonstone Brook Pastures BHS	Short	10	33.5	0.607	34.1	6.1 %	341 %
H10a	Gibb's Wood and Bonestone Wood BHS	Tall	10	33.5	0.260	33.7	2.6 %	337 %
H10b		Tall	10	33.5	0.154	33.6	1.5 %	336 %
H11a	Ashnott Wood BHS and Ashnott Wood Ancient Woodland (ID 1102518)	Tall	10	33.5	0.171	33.6	1.7 %	336 %
H11b		Tall	10	33.5	0.173	33.6	1.7 %	336 %
H11c		Tall	20	23.4	0.101	23.5	0.5 %	117 %
H12	Crag House Roadside Verges BHS	Short	10	35.3	0.118	35.4	1.2 %	354 %
H13	Ashnott Meadow BHS	Tall	5	23.4	0.157	23.5	3.1 %	471 %

Location ID	Ecological site	Vegetation Type	Critical Load (CL) (kEqH+/ha-year) (CLMaxN)	Nitrogen Deposition (kgN/ha/year)				
				Existing Deposition	PC	PEC	PC/CL ( %)	PEC/CL ( %)
H14a	Birkett Fell, Hodder Bank Fell and Mosswaite Fell	Short	5	23.4	0.131	23.5	2.6 %	470 %
H14b		Short	10	23.4	0.171	23.6	1.7 %	236 %
H15a	Feazer Wood BHS and Ancient Woodland (ID 1413082)	Tall	10	35.3	0.148	35.4	1.5 %	354 %
H15b		Tall	10	35.3	0.138	35.4	1.4 %	354 %
H16a	Hospital Wood BHS and Hospital Wood Ancient Woodland ID 1102662)	Tall	10	35.3	0.143	35.4	1.4 %	354 %
H16b		Tall	10	41.9	0.133	42.0	1.3 %	420 %
H17	Cross Lane Roadside Verges BHS	Short	20	27.2	0.093	27.3	0.5 %	136 %
H18a	Marsdens Wood Ancient Woodland (ID 1102521) and Braddup Wood South BHS	Tall	10	41.9	0.140	42.0	1.4 %	420 %
H18b		Tall	10	41.9	0.138	42.0	1.4 %	420 %
H19a	Braddup Wood North BHS/Braddup Wood Ancient Woodland (ID 11102520)	Tall	10	38.6	0.160	38.8	1.6 %	388 %
H19b		Tall	10	38.6	0.160	38.8	1.6 %	388 %
H19c		Tall	10	38.6	0.205	38.8	2.1 %	388 %
H20	Moor Piece BHS	Short	5	25.8	0.078	25.8	1.6 %	517 %
		Tall	10	38.6	0.121	38.8	1.2 %	388 %
H21	Ancient Woodland (ID 1413085)	Tall	10	33.5	0.072	33.5	0.7 %	335 %
H22	Newton North Roadside Verges	Short	20	25.9	0.303	26.2	1.5 %	131 %
H23	Newton West Roadside Verges	Short	20	25.9	4.751	30.7	23.8 %	153 %
H24	Gamble Hole Farm Pasture	Short	20	25.9	1.604	27.5	8.0 %	138 %
H25a	Bowland Fells SPA and Bowland Fells SSSI	Short	10	25.1	0.027	25.1	0.3 %	251 %
H25b		Short	10	25.1	0.035	25.1	0.3 %	251 %

Location ID	Ecological site	Vegetation Type	Critical Load (CL) (kEqH+/ha-year) (CLMaxN)	Nitrogen Deposition (kgN/ha/year)				
				Existing Deposition	PC	PEC	PC/CL ( %)	PEC/CL ( %)
H25c		Short	10	25.1	0.045	25.1	0.4 %	251 %
H25d		Short	10	27.3	0.054	27.4	0.5 %	274 %
H25e		Short	10	27.3	0.069	27.4	0.7 %	274 %
H25f		Short	10	27.3	0.088	27.4	0.9 %	274 %
H25g		Short	10	27.7	0.123	27.8	1.2 %	278 %



## 4. Road Traffic Emissions Results

Table 13: Modelled air quality worst case human location results for annual mean concentrations of NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> (µg/m<sup>3</sup>)

Location ID	X	Y	Location description	Property use	NO <sub>2</sub>				PM <sub>10</sub>				PM <sub>2.5</sub>			
					Base 2019	DN 2024	DS 2024	DS - DN 2024	Base 2019	DN 2024	DS 2024	DS - DN 2024	Base 2019	DN 2024	DS 2024	DS - DN 2024
R6	369938	448755	New Laithe Farm	Residential	4.5	4.0	4.0	0.0	8.0	7.5	7.5	0.0	5.5	5.1	5.1	0.0
R7	370540	448932	Wyndfell Farm	Residential	5.1	4.4	4.5	0.0	8.1	7.6	7.6	0.0	5.1	5.1	5.1	0.0
R8	370307	449148	Slim Row Farm	Residential	5.6	4.9	5.0	0.1	8.2	7.6	7.7	0.1	5.1	5.2	5.2	0.1
R9	370264	449753	Hill House Farm	Residential	5.6	4.9	5.1	0.1	8.2	7.6	7.7	0.1	5.2	5.2	5.2	0.0
R11	370347	449588	Residential off Slaidburn Rd	Residential	5.4	4.7	4.8	0.1	8.1	7.6	7.6	0.0	5.1	5.2	5.2	0.1
R17	372285	445045	Bookers Farm	Residential	6.5	5.8	5.9	0.2	8.6	8.1	8.1	0.0	5.4	5.4	5.4	0.0
R18	372209	445285	Residential off Slaidburn Rd	Residential	5.9	5.2	5.2	0.0	8.5	8.0	8.0	0.0	5.3	5.3	5.3	0.0
R19	372231	445465	Teewood Farm	Residential	6.4	5.7	5.7	0.1	8.6	8.1	8.1	0.0	5.4	5.4	5.4	0.0
AQMA	374195	441231	A671 (Whalley Road), Clitheroe	Residential-1st floor	16.8	14.9	15.0	0.1	11.0	10.4	10.4	0.0	7.0	7.0	7.0	0.0

**Table 14: Modelled air quality ecological location transect results for annual mean NO<sub>x</sub> and NO<sub>2</sub> concentrations (µg/m<sup>3</sup>)**

Location/ Transect ID	Ecological Site	X	Y	NO <sub>2</sub>				NO <sub>x</sub>			
				Base 2019	DN 2024	DS 2024	DS - DN 2024	Base 2019	DN 2024	DS 2024	DS - DN 2024
H5	Bradford Fell, Easington Fell and Harrop Fell BHS	370855	448397	5.8	5.1	5.2	0.1	7.8	6.5	6.7	0.20
		370862	448404	5.6	4.9	5.0	0.1	7.5	6.2	6.3	0.17
		370870	448410	5.3	4.7	4.8	0.1	7.1	5.8	6.0	0.12
		370877	448417	5.2	4.5	4.6	0.1	6.8	5.6	5.7	0.09
		370884	448424	5.1	4.4	4.5	0.0	6.6	5.4	5.5	0.07
		370891	448431	5.0	4.4	4.4	0.0	6.4	5.3	5.3	0.06
		370899	448438	4.9	4.3	4.3	0.0	6.3	5.2	5.2	0.04
		370906	448444	4.8	4.2	4.3	0.0	6.2	5.1	5.1	0.04
		370913	448451	4.8	4.2	4.2	0.0	6.1	5.0	5.0	0.03
		370921	448458	4.8	4.2	4.2	0.0	6.0	5.0	5.0	0.02
		370928	448465	4.7	4.1	4.2	0.0	6.0	4.9	4.9	0.02
		370935	448471	4.7	4.1	4.1	0.0	5.9	4.9	4.9	0.01
		370943	448478	4.7	4.1	4.1	0.0	5.9	4.9	4.9	0.01
		370950	448485	4.7	4.1	4.1	0.0	5.9	4.8	4.8	0.01
		370957	448492	4.7	4.1	4.1	0.0	5.9	4.8	4.8	0.01
		370965	448499	4.7	4.1	4.1	0.0	5.9	4.8	4.8	0.01
		370972	448505	4.7	4.1	4.1	0.0	5.8	4.8	4.8	0.01
		370979	448512	4.7	4.1	4.1	0.0	5.8	4.8	4.8	0.00
370987	448519	4.7	4.1	4.1	0.0	5.8	4.8	4.8	0.00		
370994	448526	4.6	4.1	4.1	0.0	5.8	4.8	4.8	0.00		

Location/ Transect ID	Ecological Site	X	Y	NO <sub>2</sub>				NO <sub>x</sub>			
				Base 2019	DN 2024	DS 2024	DS - DN 2024	Base 2019	DN 2024	DS 2024	DS - DN 2024
		371001	448533	4.7	4.1	4.1	0.0	5.9	4.8	4.8	0.00
H6	Waddington Fell and Browsholme Moor BHS	371274	448398	5.8	5.1	5.2	0.1	7.8	6.5	6.7	0.20
		371269	448390	5.5	4.9	5.0	0.1	7.4	6.1	6.2	0.15
		371264	448381	5.3	4.7	4.7	0.1	7.0	5.8	5.9	0.11
		371259	448372	5.2	4.5	4.6	0.1	6.7	5.6	5.6	0.09
		371254	448364	5.1	4.4	4.5	0.0	6.5	5.4	5.5	0.07
		371249	448355	5.0	4.4	4.4	0.0	6.4	5.3	5.3	0.05
		371244	448346	4.9	4.3	4.3	0.0	6.3	5.2	5.2	0.04
		371239	448338	4.9	4.3	4.3	0.0	6.2	5.1	5.1	0.03
		371234	448329	4.8	4.2	4.2	0.0	6.1	5.0	5.0	0.03
		371229	448320	4.8	4.2	4.2	0.0	6.0	5.0	5.0	0.02
		371224	448312	4.7	4.2	4.2	0.0	6.0	4.9	4.9	0.02
		371219	448303	4.7	4.1	4.1	0.0	6.0	4.9	4.9	0.01
		371214	448294	4.7	4.1	4.1	0.0	5.9	4.9	4.9	0.01
		371209	448286	4.7	4.1	4.1	0.0	5.9	4.9	4.9	0.01
		371204	448277	4.7	4.1	4.1	0.0	5.9	4.9	4.9	0.01
		371199	448268	4.7	4.1	4.1	0.0	5.9	4.8	4.8	0.01
		371194	448260	4.7	4.1	4.1	0.0	5.9	4.8	4.8	0.01
		371189	448251	4.7	4.1	4.1	0.0	5.9	4.8	4.8	0.00
371184	448243	4.7	4.1	4.1	0.0	5.9	4.8	4.8	0.00		
371179	448233	4.7	4.1	4.1	0.0	5.9	4.8	4.8	0.00		

Location/ Transect ID	Ecological Site	X	Y	NO <sub>2</sub>				NO <sub>x</sub>			
				Base 2019	DN 2024	DS 2024	DS - DN 2024	Base 2019	DN 2024	DS 2024	DS - DN 2024
		371176	448229	4.7	4.1	4.1	0.0	5.9	4.8	4.8	0.00
H7	Waddington Fell and Browsholme Moor BHS	371973	446678	6.7	5.9	6.0	0.1	9.1	7.5	7.6	0.10
		371963	446678	6.5	5.7	5.8	0.0	8.7	7.2	7.2	0.07
		371953	446678	6.3	5.5	5.6	0.0	8.3	6.8	6.9	0.06
		371943	446679	6.2	5.4	5.4	0.0	8.0	6.6	6.7	0.04
		371933	446679	6.0	5.3	5.3	0.0	7.8	6.5	6.5	0.03
		371923	446679	6.0	5.2	5.2	0.0	7.7	6.3	6.4	0.03
		371913	446680	5.9	5.2	5.2	0.0	7.6	6.2	6.2	0.02
		371903	446680	5.8	5.1	5.1	0.0	7.5	6.1	6.2	0.02
		371893	446681	5.8	5.1	5.1	0.0	7.4	6.1	6.1	0.01
		371883	446681	5.8	5.0	5.1	0.0	7.3	6.0	6.0	0.01
		371873	446681	5.7	5.0	5.0	0.0	7.3	6.0	6.0	0.01
		371863	446682	5.7	5.0	5.0	0.0	7.2	6.0	6.0	0.01
		371854	446682	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.00
		371844	446682	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.00
		371834	446683	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.00
		371824	446683	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.00
		371814	446684	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.00
		371804	446684	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.00
371794	446684	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.00		
371784	446685	5.7	5.0	5.0	0.0	7.1	5.9	5.9	0.00		

Location/ Transect ID	Ecological Site	X	Y	NO <sub>2</sub>				NO <sub>x</sub>			
				Base 2019	DN 2024	DS 2024	DS - DN 2024	Base 2019	DN 2024	DS 2024	DS - DN 2024
H16b	Hospital Wood BHS and Hospital Wood Ancient Woodland (ID 1102662)	372736	444103	5.7	5.0	5.0	0.0	7.3	6.0	6.0	0.02
		372736	444113	5.7	5.0	5.0	0.0	7.2	6.0	6.0	0.01
		372736	444123	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.01
		372736	444133	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.01
		372736	444143	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.01
		372736	444153	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.01
		372736	444163	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.01
		372736	444173	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.01
		372736	444183	5.7	5.0	5.0	0.0	7.2	5.9	5.9	0.00
		372736	444193	5.6	5.0	5.0	0.0	7.1	5.9	5.9	0.00
		372736	444202	5.6	5.0	5.0	0.0	7.1	5.9	5.9	0.00
H4a	Waddington Fell Road, Roadside Verges BHS	370253	449760	5.7	5.8	5.9	0.1	7.7	6.3	6.5	0.18
H4b	Waddington Fell Road, Roadside Verges BHS	370166	449916	5.7	5.8	5.9	0.1	7.7	6.3	6.5	0.18
H23	Newton West Roadside Verges BHS	369057	450107	4.8	4.5	4.5	0.0	6.2	5.2	5.2	0.06
H24	Gamble Hole Farm Pasture BHS	368855	450247	4.4	3.9	4.3	0.4	5.6	4.6	5.2	0.65

**Table 15: Modelled air quality ecological transect results for acid deposition**

Location/ Transect ID	Ecological Site	X	Y	Vegetation type (for deposition velocity)	Critical Load (CL) (kEqH+/ha- year)			Estimated acid deposition (kEqH+/ha-year)					
					CLMaxS	CLMinN	CLMaxN	Existing Deposition (N)	Existing Deposition (S)	PC (N)	PEC	PC/CL (%)	PEC/CL (%)
H4a	Waddington Fell Road, Roadside Verges BHS	370253	449760	Short	4.00	1.07	5.07	1.75	0.30	0.0013	2.05	0.0 %	40 %
H4b	Waddington Fell Road, Roadside Verges BHS	370166	449916	Short	4.00	1.07	5.07	1.75	0.30	0.0013	2.05	0.0 %	40 %
H5	Bradford Fell, Easington Fell and Harrop Fell BHS	370855	448397	Short	0.47	0.86	1.33	1.75	0.30	0.0013	2.05	0.1 %	155 %
		370862	448404	Short	0.47	0.86	1.33	1.75	0.30	0.0010	2.05	0.1 %	155 %
		370870	448410	Short	0.47	0.86	1.33	1.75	0.30	0.0007	2.05	0.1 %	155 %
		370877	448417	Short	0.47	0.86	1.33	1.75	0.30	0.0006	2.05	0.0 %	155 %
		370884	448424	Short	0.47	0.86	1.33	1.75	0.30	0.0004	2.05	0.0 %	155 %
		370891	448431	Short	0.47	0.86	1.33	1.75	0.30	0.0003	2.05	0.0 %	155 %
		370899	448438	Short	0.47	0.86	1.33	1.75	0.30	0.0002	2.05	0.0 %	155 %
		370906	448444	Short	0.47	0.86	1.33	1.75	0.30	0.0002	2.05	0.0 %	155 %
		370913	448451	Short	0.47	0.86	1.33	1.75	0.30	0.0001	2.05	0.0 %	154 %
		370921	448458	Short	0.47	0.86	1.33	1.75	0.30	0.0001	2.05	0.0 %	154 %
		370928	448465	Short	0.47	0.86	1.33	1.75	0.30	0.0001	2.05	0.0 %	154 %
		370935	448471	Short	0.47	0.86	1.33	1.75	0.30	0.0001	2.05	0.0 %	154 %
		370943	448478	Short	0.47	0.86	1.33	1.75	0.30	0.0000	2.05	0.0 %	154 %
		370950	448485	Short	0.47	0.86	1.33	1.75	0.30	0.0000	2.05	0.0 %	154 %
		370957	448492	Short	0.47	0.86	1.33	1.75	0.30	0.0000	2.05	0.0 %	154 %
		370965	448499	Short	0.47	0.86	1.33	1.75	0.30	0.0001	2.05	0.0 %	154 %
		370972	448505	Short	0.47	0.86	1.33	1.75	0.30	0.0000	2.05	0.0 %	154 %
		370979	448512	Short	0.47	0.86	1.33	1.75	0.30	0.0000	2.05	0.0 %	154 %
370987	448519	Short	0.47	0.86	1.33	1.75	0.30	0.0000	2.05	0.0 %	154 %		
370994	448526	Short	0.47	0.86	1.33	1.75	0.30	0.0001	2.05	0.0 %	154 %		
371001	448533	Short	0.47	0.86	1.33	1.75	0.30	0.0000	2.05	0.0 %	154 %		

Location/ Transect ID	Ecological Site	X	Y	Vegetation type (for deposition velocity)	Critical Load (CL) (kEqH+/ha- year)			Estimated acid deposition (kEqH+/ha-year)					
					CLMaxS	CLMinN	CLMaxN	Existing Deposition (N)	Existing Deposition (S)	PC (N)	PEC	PC/CL (%)	PEC/CL (%)
H6	Waddington Fell and Browsholme Moor BHS	371274	448398.	Short	0.52	0.32	0.84	1.75	0.30	0.0013	2.05	0.2 %	244 %
		371269	448390	Short	0.52	0.32	0.84	1.75	0.30	0.0009	2.05	0.1 %	244 %
		371264	448381	Short	0.52	0.32	0.84	1.75	0.30	0.0007	2.05	0.1 %	244 %
		371259	448372	Short	0.52	0.32	0.84	1.75	0.30	0.0006	2.05	0.1 %	244 %
		371254	448364	Short	0.52	0.32	0.84	1.75	0.30	0.0004	2.05	0.1 %	244 %
		371249	448355	Short	0.52	0.32	0.84	1.75	0.30	0.0002	2.05	0.0 %	244 %
		371244	448346	Short	0.52	0.32	0.84	1.75	0.30	0.0002	2.05	0.0 %	244 %
		371239	448338	Short	0.52	0.32	0.84	1.75	0.30	0.0001	2.05	0.0 %	244 %
		371234	448329	Short	0.52	0.32	0.84	1.75	0.30	0.0002	2.05	0.0 %	244 %
		371229	448320	Short	0.52	0.32	0.84	1.75	0.30	0.0001	2.05	0.0 %	244 %
		371224	448312	Short	0.52	0.32	0.84	1.75	0.30	0.0001	2.05	0.0 %	244 %
		371219	448303	Short	0.52	0.32	0.84	1.75	0.30	0.0001	2.05	0.0 %	244 %
		371214	448294	Short	0.52	0.32	0.84	1.75	0.30	0.0000	2.05	0.0 %	244 %
		371209	448286	Short	0.52	0.32	0.84	1.75	0.30	0.0000	2.05	0.0 %	244 %
		371204	448277	Short	0.52	0.32	0.84	1.75	0.30	0.0001	2.05	0.0 %	244 %
		371199	448268	Short	0.52	0.32	0.84	1.75	0.30	0.0000	2.05	0.0 %	244 %
		371194	448260	Short	0.52	0.32	0.84	1.75	0.30	0.0000	2.05	0.0 %	244 %
		371189	448251	Short	0.52	0.32	0.84	1.75	0.30	0.0000	2.05	0.0 %	244 %
		371184	448243	Short	0.52	0.32	0.84	1.75	0.30	0.0000	2.05	0.0 %	244 %
		371179	448233	Short	0.52	0.32	0.84	1.75	0.30	0.0000	2.05	0.0 %	244 %
371176	448229	Short	0.52	0.32	0.84	1.75	0.30	0.0000	2.05	0.0 %	244 %		
H7	Waddington Fell and Browsholme Moor BHS	371973	446678	Short	0.45	0.32	0.77	1.75	0.30	0.0006	2.05	0.1 %	265 %
		371963	446678	Short	0.45	0.32	0.77	1.75	0.30	0.0004	2.05	0.1 %	265 %
		371953	446678	Short	0.45	0.32	0.77	1.75	0.30	0.0003	2.05	0.0 %	265 %

Location/ Transect ID	Ecological Site	X	Y	Vegetation type (for deposition velocity)	Critical Load (CL) (kEqH+/ha- year)			Estimated acid deposition (kEqH+/ha-year)					
					CLMaxS	CLMinN	CLMaxN	Existing Deposition (N)	Existing Deposition (S)	PC (N)	PEC	PC/CL (%)	PEC/CL (%)
		371943	446679	Short	0.45	0.32	0.77	1.75	0.30	0.0002	2.05	0.0 %	265 %
		371933	446679	Short	0.45	0.32	0.77	1.75	0.30	0.0001	2.05	0.0 %	265 %
		371923	446679	Short	0.45	0.32	0.77	1.75	0.30	0.0001	2.05	0.0 %	265 %
		371913	446680	Short	0.45	0.32	0.77	1.75	0.30	0.0001	2.05	0.0 %	265 %
		371903	446680	Short	0.45	0.32	0.77	1.75	0.30	0.0000	2.05	0.0 %	265 %
		371893	446681	Short	0.45	0.32	0.77	1.75	0.30	0.0001	2.05	0.0 %	265 %
		371883	446681	Short	0.45	0.32	0.77	1.75	0.30	0.0001	2.05	0.0 %	265 %
		371873	446681	Short	0.45	0.32	0.77	1.75	0.30	0.0000	2.05	0.0 %	265 %
		371863	446682	Short	0.45	0.32	0.77	1.75	0.30	0.0001	2.05	0.0 %	265 %
		371854	446682	Short	0.45	0.32	0.77	1.75	0.30	0.0001	2.05	0.0 %	265 %
		371844	446682	Short	0.45	0.32	0.77	1.75	0.30	0.0000	2.05	0.0 %	265 %
		371834	446683	Short	0.45	0.32	0.77	1.75	0.30	0.0000	2.05	0.0 %	265 %
		371824	446683	Short	0.45	0.32	0.77	1.75	0.30	0.0000	2.05	0.0 %	265 %
		371814	446684	Short	0.45	0.32	0.77	1.75	0.30	0.0000	2.05	0.0 %	265 %
		371804	446684	Short	0.45	0.32	0.77	1.75	0.30	0.0000	2.05	0.0 %	265 %
		371794	446684	Short	0.45	0.32	0.77	1.75	0.30	0.0000	2.05	0.0 %	265 %
		371784	446685	Short	0.45	0.32	0.77	1.75	0.30	0.0000	2.05	0.0 %	265 %
H16b	Hospital Wood BHS and Hospital Wood Ancient Woodland (ID 1102662)	372736	444103	Tall	2.74	0.36	3.10	2.99	0.31	0.0002	3.30	0.0 %	106 %
		372736	444113	Tall	2.74	0.36	3.10	2.99	0.31	0.0000	3.30	0.0 %	106 %
		372736	444123	Tall	2.74	0.36	3.10	2.99	0.31	0.0000	3.30	0.0 %	106 %
		372736	444133	Tall	2.74	0.36	3.10	2.99	0.31	0.0000	3.30	0.0 %	106 %
		372736	444143	Tall	2.74	0.36	3.10	2.99	0.31	0.0002	3.30	0.0 %	106 %
		372736	444153	Tall	2.74	0.36	3.10	2.99	0.31	0.0000	3.30	0.0 %	106 %
		372736	444163	Tall	2.74	0.36	3.10	2.99	0.31	0.0000	3.30	0.0 %	106 %



Location/ Transect ID	Ecological Site	X	Y	Vegetation type (for deposition velocity)	Critical Load (CL) (kEqH+/ha- year)			Estimated acid deposition (kEqH+/ha-year)					
					CLMaxS	CLMinN	CLMaxN	Existing Deposition (N)	Existing Deposition (S)	PC (N)	PEC	PC/CL (%)	PEC/CL (%)
		372736	444173	Tall	2.74	0.36	3.10	2.99	0.31	0.0000	3.30	0.0 %	106 %
		372736	444183	Tall	2.74	0.36	3.10	2.99	0.31	0.0000	3.30	0.0 %	106 %
		372736	444193	Tall	2.74	0.36	3.10	2.99	0.31	0.0002	3.30	0.0 %	106 %
		372736	444202	Tall	2.74	0.36	3.10	2.99	0.31	0.0000	3.30	0.0 %	106 %
H23	Newton West Roadside Verges	369057	450107	Short	4.00	1.07	5.07	1.85	0.37	0.0005	2.22	0.0 %	44 %
H24	Gamble Hole Farm Pasture	368855	450247	Short	4.00	1.07	5.07	1.85	0.37	0.0040	2.22	0.1 %	44 %

**Table 16: Modelled air quality ecological transect results for nitrogen deposition**

Location/ Transect ID	Ecological Site	X	Y	Vegetation type (for deposition velocity)	Minimum Critical Load (CL)	Estimated nutrient N deposition (kgN/ha-year)				
						Existing Deposition	PC	PEC	PC/CL (%)	PEC/CL (%)
H4a	Waddington Fell Road, Roadside Verges BHS	370253	449760	Short	20	24.50	0.019	24.52	0.094 %	123 %
H4b	Waddington Fell Road, Roadside Verges BHS	370166	449916	Short	20	24.50	0.019	24.52	0.094 %	123 %
H5	Bradford Fell, Easington Fell and Harrop Fell BHS	370855	448397	Short	10	24.50	0.018	24.52	0.177 %	245 %
		370862	448404	Short	10	24.50	0.014	24.51	0.144 %	245 %
		370870	448410	Short	10	24.50	0.009	24.51	0.095 %	245 %
		370877	448417	Short	10	24.50	0.008	24.51	0.078 %	245 %
		370884	448424	Short	10	24.50	0.006	24.51	0.062 %	245 %
		370891	448431	Short	10	24.50	0.005	24.50	0.046 %	245 %
		370899	448438	Short	10	24.50	0.003	24.50	0.031 %	245 %
		370906	448444	Short	10	24.50	0.003	24.50	0.031 %	245 %
		370913	448451	Short	10	24.50	0.002	24.50	0.015 %	245 %
		370921	448458	Short	10	24.50	0.002	24.50	0.015 %	245 %
		370928	448465	Short	10	24.50	0.002	24.50	0.015 %	245 %
		370935	448471	Short	10	24.50	0.002	24.50	0.015 %	245 %
		370943	448478	Short	10	24.50	0.000	24.50	0.000 %	245 %
		370950	448485	Short	10	24.50	0.000	24.50	0.000 %	245 %
		370957	448492	Short	10	24.50	0.000	24.50	0.000 %	245 %
		370965	448499	Short	10	24.50	0.002	24.50	0.015 %	245 %
		370972	448505	Short	10	24.50	0.000	24.50	0.000 %	245 %
		370979	448512	Short	10	24.50	0.000	24.50	0.000 %	245 %
370987	448519	Short	10	24.50	0.000	24.50	0.000 %	245 %		
370994	448526	Short	10	24.50	0.002	24.50	0.015 %	245 %		
371001	448533	Short	10	24.50	0.000	24.50	0.000 %	245 %		

Location/ Transect ID	Ecological Site	X	Y	Vegetation type (for deposition velocity)	Minimum Critical Load (CL)	Estimated nutrient N deposition (kgN/ha-year)				
						Existing Deposition	PC	PEC	PC/CL (%)	PEC/CL (%)
H6	Waddington Fell and Browsholme Moor BHS	371274	448398.	Short	10	24.50	0.018	24.52	0.177 %	245 %
		371269	448390	Short	10	24.50	0.013	24.51	0.127 %	245 %
		371264	448381	Short	10	24.50	0.009	24.51	0.094 %	245 %
		371259	448372	Short	10	24.50	0.008	24.51	0.078 %	245 %
		371254	448364	Short	10	24.50	0.006	24.51	0.062 %	245 %
		371249	448355	Short	10	24.50	0.003	24.50	0.031 %	245 %
		371244	448346	Short	10	24.50	0.003	24.50	0.031 %	245 %
		371239	448338	Short	10	24.50	0.002	24.50	0.015 %	245 %
		371234	448329	Short	10	24.50	0.003	24.50	0.030 %	245 %
		371229	448320	Short	10	24.50	0.002	24.50	0.015 %	245 %
		371224	448312	Short	10	24.50	0.002	24.50	0.015 %	245 %
		371219	448303	Short	10	24.50	0.002	24.50	0.015 %	245 %
		371214	448294	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371209	448286	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371204	448277	Short	10	24.50	0.002	24.50	0.015 %	245 %
		371199	448268	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371194	448260	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371189	448251	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371184	448243	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371179	448233	Short	10	24.50	0.000	24.50	0.000 %	245 %
371176	448229	Short	10	24.50	0.000	24.50	0.000 %	245 %		
H7	Waddington Fell and Browsholme Moor BHS	371973	446678	Short	10	24.50	0.008	24.51	0.078 %	245 %
		371963	446678	Short	10	24.50	0.006	24.51	0.062 %	245 %
		371953	446678	Short	10	24.50	0.005	24.50	0.046 %	245 %

Location/ Transect ID	Ecological Site	X	Y	Vegetation type (for deposition velocity)	Minimum Critical Load (CL)	Estimated nutrient N deposition (kgN/ha-year)				
						Existing Deposition	PC	PEC	PC/CL (%)	PEC/CL (%)
		371943	446679	Short	10	24.50	0.003	24.50	0.030 %	245 %
		371933	446679	Short	10	24.50	0.002	24.50	0.015 %	245 %
		371923	446679	Short	10	24.50	0.001	24.50	0.015 %	245 %
		371913	446680	Short	10	24.50	0.001	24.50	0.015 %	245 %
		371903	446680	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371893	446681	Short	10	24.50	0.001	24.50	0.015 %	245 %
		371883	446681	Short	10	24.50	0.001	24.50	0.015 %	245 %
		371873	446681	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371863	446682	Short	10	24.50	0.001	24.50	0.015 %	245 %
		371854	446682	Short	10	24.50	0.001	24.50	0.015 %	245 %
		371844	446682	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371834	446683	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371824	446683	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371814	446684	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371804	446684	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371794	446684	Short	10	24.50	0.000	24.50	0.000 %	245 %
		371784	446685	Short	10	24.50	0.000	24.50	0.000 %	245 %
		H16b	Hospital Wood BHS and Hospital Wood Ancient Woodland ID 1102662)	372736	444103	Tall	10	41.86	0.003	41.86
372736	444113			Tall	10	41.86	0.000	41.86	0.000 %	419 %
372736	444123			Tall	10	41.86	0.000	41.86	0.000 %	419 %
372736	444133			Tall	10	41.86	0.000	41.86	0.000 %	419 %
372736	444143			Tall	10	41.86	0.003	41.86	0.030 %	419 %
372736	444153			Tall	10	41.86	0.000	41.86	0.000 %	419 %
372736	444163			Tall	10	41.86	0.000	41.86	0.000 %	419 %

Location/ Transect ID	Ecological Site	X	Y	Vegetation type (for deposition velocity)	Minimum Critical Load (CL)	Estimated nutrient N deposition (kgN/ha-year)				
						Existing Deposition	PC	PEC	PC/CL (%)	PEC/CL (%)
		372736	444173	Tall	10	41.86	0.000	41.86	0.000 %	419 %
		372736	444183	Tall	10	41.86	0.000	41.86	0.000 %	419 %
		372736	444193	Tall	10	41.86	0.003	41.86	0.030 %	419 %
		372736	444202	Tall	10	41.86	0.000	41.86	0.000 %	419 %
H23	Newton West Roadside Verges	369057	450107	Short	20	25.90	0.007	25.91	0.033 %	130 %
H24	Gamble Hole Farm Pasture	368855	450247	Short	20	25.90	0.056	25.96	0.280 %	130 %

**Table 17: Modelled air quality worst case ecological location results for NOx**

Location ID	Ecological Site	Pollutant	EQS (ug/m <sup>3</sup> )	Background NOx (ug/m <sup>3</sup> )	Road PC (ug/m <sup>3</sup> )	Road PEC (ug/m <sup>3</sup> )	Road & Generator PC (ug/m <sup>3</sup> )	Road & Generator PEC (ug/m <sup>3</sup> )	Road PC / EQS (%)	Road PEC / EQS (%)	Road & Generator PC / EQS (%)	Road & Generator PEC / EQS (%)
H4a	Waddington Fell Road, Roadside Verges BHS	NOx	30	6.3	0.185	6.5	0.45	6.8	0.62 %	21.7 %	1.5 %	22.6 %
H4b				6.3	0.185	6.5	0.47	6.8	0.62 %	21.7 %	1.6 %	22.7 %
H5	Bradford Fell, Easington Fell and Harrop Fell BHS			6.5	0.203	6.7	0.31	6.8	0.68 %	22.2 %	1.0 %	22.5 %
H6	Waddington Fell and Browsholme Moor BHS			6.5	0.199	6.7	0.29	6.8	0.66 %	22.2 %	1.0 %	22.5 %
H7	Waddington Fell and Browsholme Moor BHS			7.5	0.097	7.6	0.30	7.8	0.32 %	25.3 %	1.0 %	26.0 %
H16b	Hospital Wood BHS and Hospital Wood Ancient Woodland ID 1102662)			6.0	0.018	6.0	0.10	6.1	0.06 %	20.0 %	0.3 %	20.3 %
H23	Newton West Roadside Verges BHS			5.2	0.057	5.2	4.62	9.8	0.19 %	17.4 %	15.4 %	32.6 %
H24	Gamble Hole Farm Pasture BHS			4.6	0.653	5.2	2.18	6.8	2.18 %	17.4 %	7.3 %	22.5 %

#### 4.1 Long Term Trend (LTTE6) Adjustment Calculations

Table 18: Long Term Trend Adjustment Calculations

Receptor	Base 2019 ( $\mu\text{g}/\text{m}^3$ )	Projected Base ( $\mu\text{g}/\text{m}^3$ )	Ratio A	Ratio B	Adjustment Factor (Ratio B / Ratio A)
R6	4.5	3.8	0.84	0.88	1.05
R7	5.1	4.1	0.81	0.88	1.08
R8	5.6	4.4	0.78	0.88	1.12
R9	5.6	4.4	0.78	0.88	1.12
R11	5.4	4.2	0.79	0.88	1.11
R17	6.5	5.2	0.79	0.88	1.11
R18	5.9	4.8	0.81	0.88	1.08
R19	6.4	5.1	0.79	0.88	1.11
AQMA	16.8	12.4	0.74	0.88	1.18