



**Haweswater Aqueduct Resilience Programme - Proposed Bowland
Section**

Environmental Statement

Volume 4

Appendix 18.2: Dispersion Modelling Results

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Contents

1.	Diesel Generator Emissions – Results at Human Locations	1
2.	Diesel Generator Emissions – Results at Ecological Locations	14
3.	Diesel Generator Emissions – Results at Ecological Locations, Acid and Nitrogen Deposition.....	27
4.	Road Traffic Emissions Results.....	37
4.1	Long Term Trend (LTTE6) Adjustment Calculations.....	52

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 (µg/m ³)	Maximum 8-hour running mean					Maximum 1-hour mean				
		EQS (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)	EQS (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)
R1	163	10,000	8.8	172	0.09 %	1.7 %	30,000	13.3	177	0.04 %	0.6 %
R2	162		11.3	174	0.11 %	1.7 %		16.5	179	0.06 %	0.6 %
R3	161		14.8	176	0.15 %	1.8 %		27.5	189	0.09 %	0.6 %
R4	161		11.8	173	0.12 %	1.7 %		21.6	183	0.07 %	0.6 %
R5	161		28.7	190	0.29 %	1.9 %		41.6	203	0.14 %	0.7 %
R6	161		30.6	191	0.31 %	1.9 %		48.6	209	0.16 %	0.7 %
R7	161		27.9	188	0.28 %	1.9 %		56.8	217	0.19 %	0.7 %
R8	161		24.7	185	0.25 %	1.9 %		57.9	218	0.19 %	0.7 %
R9	161		24.9	185	0.25 %	1.9 %		53.0	214	0.18 %	0.7 %
R10	161		24.6	185	0.25 %	1.9 %		58.4	219	0.19 %	0.7 %
R11	164		17.1	181	0.17 %	1.8 %		30.3	195	0.10 %	0.6 %
R12	163		31.2	194	0.31 %	1.9 %		43.0	206	0.14 %	0.7 %
R13	164		13.0	177	0.13 %	1.8 %		27.0	191	0.09 %	0.6 %
R14	175		11.4	186	0.11 %	1.9 %		23.3	198	0.08 %	0.7 %
R15	163		21.5	185	0.22 %	1.8 %		39.3	203	0.13 %	0.7 %
R16	163		28.9	192	0.29 %	1.9 %		58.0	221	0.19 %	0.7 %
R17	167		9.7	177	0.10 %	1.8 %		23.2	190	0.08 %	0.6 %
R18	168		9.1	177	0.09 %	1.8 %		27.2	195	0.09 %	0.6 %
R19	161		108.8	270	1.09 %	2.7 %		134.4	296	0.45 %	1.0 %
R20	161		40.0	201	0.40 %	2.0 %		64.3	226	0.21 %	0.8 %
R21	164		23.8	188	0.24 %	1.9 %		28.2	192	0.09 %	0.6 %
R22	163		21.9	185	0.22 %	1.9 %		46.2	209	0.15 %	0.7 %
R23	167		13.9	181	0.14 %	1.8 %		24.6	192	0.08 %	0.6 %
R24	161		12.6	174	0.13 %	1.7 %		25.5	187	0.09 %	0.6 %
R25	161		29.0	190	0.29 %	1.9 %		32.9	194	0.11 %	0.6 %
R26	161		28.2	190	0.28 %	1.9 %		40.2	202	0.13 %	0.7 %
R27	161		15.7	177	0.16 %	1.8 %		28.9	190	0.10 %	0.6 %

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	161		25.4	187	0.25 %	1.9 %		33.4	195	0.11 %	0.6 %
R29	161		18.2	180	0.18 %	1.8 %		28.8	190	0.10 %	0.6 %
R30	161		13.1	175	0.13 %	1.7 %		25.3	187	0.08 %	0.6 %
R31	161		12.0	173	0.12 %	1.7 %		22.8	184	0.08 %	0.6 %
R32	164		62.6	227	0.63 %	2.3 %		98.5	263	0.33 %	0.9 %
R33	164		110.1	274	1.10 %	2.7 %		173.2	337	0.58 %	1.1 %
R34	164		262.5	427	2.62 %	4.3 %		392.1	556	1.31 %	1.9 %
R35	161		748.2	910	7.48 %	9.1 %		810.3	972	2.70 %	3.2 %

Table 2: Results of detailed assessment at sensitive human locations for annual mean and 1-hour mean (99.79th percentile) NO₂ predicted concentrations

Location ID	Annual mean						99.79 th percentile of 1-hour mean					
	Baseline air quality level (µg/m ³)	EQS (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)	Baseline air quality level (µg/m ³)	EQS (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)
R1	4.0	40	0.03	4.0	0.06 %	10.1 %	8.0	200	0.4	8.4	0.2 %	4.2 %
R2	4.2		0.08	4.3	0.21 %	10.8 %	8.5		0.5	9.0	0.3 %	4.5 %
R3	4.1		0.14	4.3	0.35 %	10.7 %	8.2		0.8	9.0	0.4 %	4.5 %
R4	4.0		0.04	4.0	0.11 %	10.1 %	8.0		0.7	8.7	0.3 %	4.3 %
R5	3.9		0.18	4.1	0.46 %	10.2 %	7.8		2.3	10.1	1.2 %	5.0 %
R6	3.9		0.35	4.3	0.88 %	10.7 %	7.8		2.9	10.7	1.4 %	5.4 %
R7	3.9		0.33	4.2	0.84 %	10.6 %	7.8		2.8	10.6	1.4 %	5.3 %
R8	4.1		0.27	4.3	0.67 %	10.8 %	8.1		2.6	10.8	1.3 %	5.4 %
R9	4.1		0.20	4.3	0.51 %	10.7 %	8.2		2.1	10.2	1.0 %	5.1 %
R10	4.3		0.27	4.6	0.66 %	11.4 %	8.6		2.4	10.9	1.2 %	5.5 %
R11	5.0		0.12	5.2	0.31 %	12.9 %	10.1		1.5	11.6	0.7 %	5.8 %
R12	3.9		0.15	4.1	0.37 %	10.2 %	7.9		2.0	9.8	1.0 %	4.9 %
R13	5.0		0.07	5.1	0.19 %	12.7 %	10.0		1.2	11.2	0.6 %	5.6 %
R14	4.5		0.05	4.6	0.13 %	11.5 %	9.1		1.0	10.1	0.5 %	5.0 %
R15	3.9		0.09	4.0	0.23 %	10.0 %	7.9		2.0	9.9	1.0 %	4.9 %
R16	3.9		0.09	4.0	0.23 %	10.0 %	7.9		2.5	10.3	1.2 %	5.2 %
R17	4.0		0.02	4.0	0.04 %	10.0 %	7.9		0.9	8.8	0.4 %	4.4 %
R18	3.9		0.02	4.0	0.05 %	9.9 %	7.9		0.7	8.6	0.4 %	4.3 %
R19	4.2		0.47	4.7	1.19 %	11.8 %	8.5		7.8	16.2	3.9 %	8.1 %
R20	3.9		0.19	4.1	0.48 %	10.2 %	7.8		3.2	11.0	1.6 %	5.5 %
R21	4.8		0.11	4.9	0.27 %	12.3 %	9.6		1.5	11.1	0.7 %	5.5 %
R22	3.9		0.06	4.0	0.15 %	10.0 %	7.9		2.0	9.8	1.0 %	4.9 %
R23	4.0		0.04	4.0	0.11 %	10.0 %	7.9		1.3	9.2	0.6 %	4.6 %
R24	4.0		0.07	4.1	0.18 %	10.2 %	8.0		0.8	8.8	0.4 %	4.4 %
R25	4.0		0.15	4.2	0.38 %	10.4 %	8.0		1.0	9.0	0.5 %	4.5 %
R26	4.0		0.21	4.2	0.54 %	10.5 %	8.0		1.2	9.2	0.6 %	4.6 %

Location ID	Annual mean						99.79 th percentile of 1-hour mean					
	Baseline air quality level (µg/m ³)	EQS (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)	Baseline air quality level (µg/m ³)	EQS (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)
R27	4.0		0.15	4.2	0.37 %	10.4 %	8.0		0.9	8.9	0.5 %	4.5 %
R28	4.0		0.20	4.2	0.50 %	10.5 %	8.0		1.2	9.2	0.6 %	4.6 %
R29	4.0		0.07	4.1	0.17 %	10.2 %	8.0		0.8	8.8	0.4 %	4.4 %
R30	4.0		0.05	4.0	0.11 %	10.1 %	8.0		0.6	8.6	0.3 %	4.3 %
R31	4.0		0.03	4.0	0.08 %	10.1 %	8.0		0.6	8.6	0.3 %	4.3 %
R32	3.9		0.41	4.3	1.02 %	10.8 %	7.8		4.3	12.2	2.2 %	6.1 %
R33	3.9		0.91	4.8	2.27 %	12.1 %	7.8		8.0	15.9	4.0 %	7.9 %
R34	3.9		2.16	6.1	5.41 %	15.2 %	7.8		18.1	26.0	9.1 %	13.0 %
R35	3.9		7.75	11.6	19.37 %	29.1 %	7.8		50.4	58.2	25.2 %	29.1 %

Table 3: Results of detailed assessment at sensitive human locations for 24-mean (99.18th percentile), 1-hour mean (99.73rd percentile) and 15-minute mean (99.9th percentile) SO₂ predicted concentrations

Location ID	Baseline air quality level (µg/m ³)	Maximum 24 hour mean (99.18 th %ile)					Maximum 1-hour mean (99.73 th %ile)					Maximum 15-minute (99.9 th %ile)				
		EQS (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)	EQS (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)	EQS (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)
R1	3.6	125	0.3	3.9	0.2 %	3.1 %	350	0.9	4.5	0.3 %	1.3 %	266	1.8	5.4	0.7 %	2.0 %
R2	3.6		0.5	4.1	0.4 %	3.3 %		1.4	5.0	0.4 %	1.4 %		2.4	5.9	0.9 %	2.2 %
R3	3.6		0.8	4.4	0.7 %	3.5 %		2.1	5.6	0.6 %	1.6 %		3.1	6.7	1.2 %	2.5 %
R4	3.6		0.5	4.0	0.4 %	3.2 %		1.7	5.2	0.5 %	1.5 %		2.6	6.2	1.0 %	2.3 %
R5	5.0		1.1	6.1	0.8 %	4.9 %		3.5	8.6	1.0 %	2.4 %		5.4	10.4	2.0 %	3.9 %
R6	5.1		1.4	6.5	1.1 %	5.2 %		4.3	9.4	1.2 %	2.7 %		7.1	12.1	2.7 %	4.6 %
R7	5.1		1.3	6.4	1.1 %	5.1 %		3.8	8.9	1.1 %	2.5 %		6.1	11.1	2.3 %	4.2 %
R8	5.1		1.0	6.1	0.8 %	4.9 %		3.8	8.9	1.1 %	2.6 %		6.0	11.1	2.3 %	4.2 %
R9	5.1		0.9	6.0	0.7 %	4.8 %		3.2	8.3	0.9 %	2.4 %		5.0	10.1	1.9 %	3.8 %
R10	5.1		1.0	6.1	0.8 %	4.9 %		3.6	8.7	1.0 %	2.5 %		5.6	10.7	2.1 %	4.0 %
R11	5.1		0.6	5.7	0.5 %	4.5 %		2.2	7.3	0.6 %	2.1 %		4.0	9.1	1.5 %	3.4 %
R12	5.1		0.8	5.9	0.6 %	4.7 %		2.9	7.9	0.8 %	2.3 %		5.0	10.0	1.9 %	3.8 %
R13	5.1		0.5	5.6	0.4 %	4.5 %		1.8	6.9	0.5 %	2.0 %		3.4	8.4	1.3 %	3.2 %
R14	5.1		0.4	5.5	0.3 %	4.4 %		1.5	6.6	0.4 %	1.9 %		2.8	7.9	1.0 %	3.0 %
R15	5.1		0.8	5.9	0.6 %	4.7 %		3.0	8.1	0.9 %	2.3 %		5.4	10.5	2.0 %	3.9 %
R16	5.1		1.1	6.1	0.9 %	4.9 %		3.6	8.7	1.0 %	2.5 %		5.8	10.8	2.2 %	4.1 %
R17	5.1		0.2	5.3	0.2 %	4.3 %		1.2	6.3	0.3 %	1.8 %		2.5	7.6	0.9 %	2.9 %
R18	5.1		0.3	5.3	0.2 %	4.3 %		0.9	6.0	0.3 %	1.7 %		2.6	7.7	1.0 %	2.9 %
R19	5.0		5.8	10.8	4.6 %	8.6 %		11.9	16.9	3.4 %	4.8 %		13.5	18.6	5.1 %	7.0 %
R20	5.0		2.6	7.6	2.1 %	6.1 %		4.4	9.5	1.3 %	2.7 %		7.5	12.5	2.8 %	4.7 %
R21	5.1		0.5	5.6	0.4 %	4.5 %		2.1	7.2	0.6 %	2.1 %		3.6	8.7	1.3 %	3.3 %
R22	5.1		0.7	5.8	0.6 %	4.6 %		2.7	7.8	0.8 %	2.2 %		5.1	10.2	1.9 %	3.8 %
R23	5.1		0.4	5.5	0.3 %	4.4 %		1.8	6.9	0.5 %	2.0 %		3.6	8.7	1.4 %	3.3 %
R24	3.6		0.8	4.3	0.6 %	3.5 %		2.0	5.6	0.6 %	1.6 %		3.0	6.6	1.1 %	2.5 %
R25	3.6		1.2	4.8	1.0 %	3.8 %		2.6	6.2	0.7 %	1.8 %		3.8	7.4	1.4 %	2.8 %

Location ID	Baseline air quality level ($\mu\text{g}/\text{m}^3$)	Maximum 24 hour mean (99.18 th %ile)					Maximum 1-hour mean (99.73 th %ile)					Maximum 15-minute (99.9 th %ile)				
		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 (%)	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 (%)
R26	3.6		1.3	4.9	1.0 %	3.9 %		3.2	6.7	0.9 %	1.9 %		4.1	7.7	1.5 %	2.9 %
R27	3.6		0.9	4.5	0.7 %	3.6 %		2.4	6.0	0.7 %	1.7 %		3.1	6.7	1.2 %	2.5 %
R28	3.6		1.6	5.2	1.3 %	4.1 %		3.2	6.7	0.9 %	1.9 %		4.3	7.8	1.6 %	2.9 %
R29	3.6		0.9	4.5	0.7 %	3.6 %		2.1	5.6	0.6 %	1.6 %		3.3	6.9	1.3 %	2.6 %
R30	3.6		0.9	4.5	0.7 %	3.6 %		1.7	5.2	0.5 %	1.5 %		2.7	6.2	1.0 %	2.3 %
R31	3.6		0.5	4.0	0.4 %	3.2 %		1.5	5.1	0.4 %	1.4 %		2.8	6.4	1.0 %	2.4 %
R32	5.0		3.5	8.6	2.8 %	6.8 %		6.6	11.7	1.9 %	3.3 %		8.6	13.7	3.2 %	5.1 %
R33	5.0		7.1	12.2	5.7 %	9.8 %		12.4	17.4	3.5 %	5.0 %		14.1	19.2	5.3 %	7.2 %
R34	5.0		18.7	23.7	14.9 %	19.0 %		28.0	33.0	8.0 %	9.4 %		29.7	34.7	11.1 %	13.0 %
R35	5.0		48.0	53.0	38.4 %	42.4 %		77.9	82.9	22.2 %	23.7 %		81.8	86.9	30.8 %	32.7 %

Table 4: Results of detailed assessment at sensitive human locations for annual mean and 24-hour mean (90.41st) percentile) PM₁₀ predicted concentrations

Receptor ID	Annual mean						90.41 st percentile of 24-hour mean					
	Baseline air quality level (µg/m ³)	EQS (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)	Baseline air quality level (µg/m ³)	EQS (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)
R1	7.4	40	0.002	7.4	0.004 %	18.5 %	14.8	50	0.0	14.6	0.0 %	29.2 %
R2	7.6		0.005	7.6	0.013 %	19.0 %	15.2		0.0	15.1	0.0 %	30.3 %
R3	7.4		0.008	7.4	0.021 %	18.5 %	14.8		0.0	15.0	0.0 %	30.0 %
R4	7.4		0.003	7.4	0.007 %	18.6 %	14.9		0.0	14.6	0.0 %	29.3 %
R5	7.5		0.013	7.5	0.032 %	18.8 %	15.0		0.0	14.6	0.0 %	29.3 %
R6	7.7		0.025	7.7	0.062 %	19.3 %	15.4		0.0	14.6	0.0 %	29.3 %
R7	7.7		0.024	7.7	0.059 %	19.3 %	15.4		0.0	14.5	0.0 %	29.0 %
R8	7.7		0.019	7.7	0.047 %	19.3 %	15.4		0.0	14.6	0.0 %	29.3 %
R9	7.7		0.014	7.7	0.036 %	19.3 %	15.4		0.0	14.0	0.0 %	28.0 %
R10	7.7		0.019	7.7	0.047 %	19.3 %	15.4		0.0	14.0	0.0 %	28.0 %
R11	7.7		0.009	7.7	0.022 %	19.3 %	15.4		0.0	14.0	0.0 %	28.0 %
R12	7.6		0.010	7.6	0.026 %	18.9 %	15.1		0.0	14.0	0.0 %	28.0 %
R13	7.7		0.005	7.7	0.013 %	19.3 %	15.4		0.0	14.0	0.0 %	28.0 %
R14	7.7		0.004	7.7	0.009 %	19.3 %	15.4		0.0	14.2	0.0 %	28.3 %
R15	7.6		0.006	7.6	0.016 %	18.9 %	15.1		0.0	14.2	0.0 %	28.4 %
R16	7.6		0.007	7.6	0.017 %	18.9 %	15.1		0.0	14.2	0.0 %	28.4 %
R17	7.6		0.001	7.6	0.003 %	18.9 %	15.1		0.0	14.2	0.0 %	28.3 %
R18	7.6		0.001	7.6	0.003 %	18.9 %	15.1		0.0	14.2	0.1 %	28.4 %
R19	7.6		0.034	7.6	0.084 %	19.1 %	15.2		0.0	14.3	0.1 %	28.6 %
R20	7.5		0.014	7.5	0.034 %	18.8 %	15.0		0.0	14.5	0.1 %	29.0 %
R21	7.7		0.008	7.7	0.019 %	19.3 %	15.4		0.1	14.9	0.2 %	29.8 %
R22	7.6		0.004	7.6	0.011 %	18.9 %	15.1		0.1	14.8	0.1 %	29.6 %
R23	7.6		0.003	7.6	0.008 %	18.9 %	15.1		0.0	14.4	0.0 %	28.8 %
R24	7.4		0.004	7.4	0.0 %	0.2 %	14.9		0.0	14.6	0.0 %	29.2 %
R25	7.4		0.009	7.4	0.023 %	18.6 %	14.9		0.0	14.4	0.1 %	28.9 %
R26	7.4		0.013	7.4	0.032 %	18.6 %	14.9		0.2	15.0	0.3 %	29.9 %
R27	7.4		0.009	7.4	0.022 %	18.6 %	14.9		0.2	14.5	0.4 %	29.0 %

Receptor ID	Annual mean						90.41 st percentile of 24-hour mean					
	Baseline air quality level ($\mu\text{g}/\text{m}^3$)	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 (%)	Baseline air quality level ($\mu\text{g}/\text{m}^3$)	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	7.4		0.012	7.4	0.030 %	18.6 %	14.9		0.1	14.8	0.2 %	29.7 %
R29	7.4		0.004	7.4	0.010 %	18.6 %	14.9		0.1	14.8	0.2 %	29.6 %
R30	7.4		0.003	7.4	0.007 %	18.6 %	14.9		0.1	14.4	0.2 %	28.7 %
R31	7.4		0.002	7.4	0.005 %	18.6 %	14.9		0.1	14.4	0.2 %	28.8 %
R32	7.6		0.029	7.6	0.072 %	19.0 %	15.1		0.1	14.4	0.3 %	28.8 %
R33	7.6		0.064	7.6	0.160 %	19.1 %	15.1		0.0	14.8	0.0 %	29.7 %
R34	7.6		0.153	7.7	0.382 %	19.3 %	15.1		0.0	14.7	0.0 %	29.3 %
R35	7.5		0.545	8.1	1.361 %	20.1 %	15.0		0.0	14.7	0.0 %	29.3 %

Table 5: Results of detailed assessment at sensitive human locations for annual mean PM_{2.5} predicted concentrations

Location ID	Baseline air quality level (µg/m ³)	Annual mean				
		EQS (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)
R1	5.1	25	0.002	5.1	0.01 %	20.2 %
R2	5.1		0.005	5.1	0.02 %	20.4 %
R3	5.1		0.008	5.1	0.03 %	20.4 %
R4	5.1		0.003	5.1	0.01 %	20.2 %
R5	5.1		0.013	5.1	0.05 %	20.5 %
R6	5.2		0.025	5.2	0.10 %	20.9 %
R7	5.2		0.024	5.2	0.09 %	20.9 %
R8	5.2		0.019	5.2	0.08 %	20.9 %
R9	5.2		0.014	5.2	0.06 %	20.9 %
R10	5.2		0.019	5.2	0.08 %	20.9 %
R11	5.2		0.009	5.2	0.03 %	20.8 %
R12	5.1		0.010	5.1	0.04 %	20.5 %
R13	5.2		0.005	5.2	0.02 %	20.8 %
R14	5.2		0.004	5.2	0.01 %	20.8 %
R15	5.1		0.006	5.1	0.03 %	20.5 %
R16	5.1		0.007	5.1	0.03 %	20.5 %
R17	5.1		0.001	5.1	0.00 %	20.5 %
R18	5.1		0.001	5.1	0.01 %	20.5 %
R19	5.1		0.034	5.1	0.13 %	20.5 %
R20	5.1		0.014	5.1	0.05 %	20.5 %
R21	5.2		0.008	5.2	0.03 %	20.8 %
R22	5.1		0.004	5.1	0.02 %	20.5 %
R23	5.1		0.003	5.1	0.01 %	20.5 %
R24	5.1		0.004	5.1	0.02 %	20.2 %
R25	5.1		0.009	5.1	0.04 %	20.2 %
R26	5.1		0.013	5.1	0.05 %	20.3 %
R27	5.1		0.009	5.1	0.04 %	20.2 %

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		0.030	4.9	0.120 %	19.6 %
R29	5.1		0.022	4.9	0.087 %	19.6 %
R30	5.1		0.025	4.8	0.101 %	19.3 %
R31	5.1		0.040	4.8	0.158 %	19.4 %
R32	5.1		0.051	4.9	0.205 %	19.4 %
R33	5.1		0.002	4.9	0.007 %	19.8 %
R34	5.1		0.005	4.9	0.021 %	19.7 %
R35	5.1		0.006	4.9	0.023 %	19.7 %

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	2.1	180	0.01	2.1	0.01 %	1.2 %	4.2	2500	0.5	4.7	0.02 %	0.2 %
R2	2.1		0.04	2.1	0.02 %	1.2 %	4.2		0.6	4.8	0.03 %	0.2 %
R3	2.1		0.06	2.2	0.04 %	1.2 %	4.2		1.0	5.2	0.04 %	0.2 %
R4	2.1		0.02	2.1	0.01 %	1.2 %	4.2		0.8	5.0	0.03 %	0.2 %
R5	1.2		0.05	1.2	0.03 %	0.7 %	2.3		1.4	3.7	0.06 %	0.1 %
R6	1.2		0.09	1.2	0.05 %	0.7 %	2.3		1.6	3.9	0.06 %	0.2 %
R7	1.2		0.09	1.2	0.05 %	0.7 %	2.3		1.9	4.2	0.08 %	0.2 %
R8	1.2		0.07	1.2	0.04 %	0.7 %	2.3		1.9	4.2	0.08 %	0.2 %
R9	1.2		0.05	1.2	0.03 %	0.7 %	2.3		1.8	4.1	0.07 %	0.2 %
R10	1.2		0.07	1.2	0.04 %	0.7 %	2.3		1.9	4.2	0.08 %	0.2 %
R11	1.5		0.03	1.6	0.02 %	0.9 %	3.1		1.0	4.1	0.04 %	0.2 %
R12	1.5		0.04	1.6	0.02 %	0.9 %	3.0		1.4	4.5	0.06 %	0.2 %
R13	1.5		0.02	1.6	0.01 %	0.9 %	3.1		0.9	4.0	0.04 %	0.2 %
R14	1.5		0.01	1.6	0.01 %	0.9 %	3.1		0.8	3.9	0.03 %	0.2 %
R15	1.5		0.02	1.5	0.01 %	0.9 %	3.0		1.3	4.3	0.05 %	0.2 %
R16	1.5		0.02	1.5	0.01 %	0.9 %	3.0		1.9	5.0	0.08 %	0.2 %
R17	1.5		0.00	1.5	0.00 %	0.8 %	3.0		0.8	3.8	0.03 %	0.2 %
R18	1.5		0.00	1.5	0.00 %	0.8 %	3.0		0.9	3.9	0.04 %	0.2 %
R19	1.2		0.12	1.3	0.07 %	0.7 %	2.3		4.4	6.7	0.18 %	0.3 %
R20	1.2		0.05	1.2	0.03 %	0.7 %	2.3		2.1	4.4	0.09 %	0.2 %
R21	1.5		0.03	1.6	0.02 %	0.9 %	3.1		0.9	4.0	0.04 %	0.2 %
R22	1.5		0.02	1.5	0.01 %	0.9 %	3.0		1.5	4.6	0.06 %	0.2 %
R23	1.5		0.01	1.5	0.01 %	0.9 %	3.0		0.8	3.9	0.03 %	0.2 %
R24	2.1		0.03	2.1	0.02 %	1.2 %	4.2		1.0	5.1	0.04 %	0.2 %
R25	2.1		0.07	2.2	0.04 %	1.2 %	4.2		1.2	5.4	0.05 %	0.2 %
R26	2.1		0.10	2.2	0.06 %	1.2 %	4.2		1.5	5.7	0.06 %	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	2.1		0.07	2.2	0.04 %	1.2 %	4.2		1.1	5.3	0.04 %	0.2 %
R28	2.1		0.09	2.2	0.05 %	1.2 %	4.2		1.3	5.4	0.05 %	0.2 %
R29	2.1		0.03	2.1	0.02 %	1.2 %	4.2		1.1	5.3	0.04 %	0.2 %
R30	2.1		0.02	2.1	0.01 %	1.2 %	4.2		1.0	5.1	0.04 %	0.2 %
R31	2.1		0.01	2.1	0.01 %	1.2 %	4.2		0.9	5.0	0.03 %	0.2 %
R32	1.5		0.10	1.6	0.06 %	0.9 %	3.0		3.3	6.3	0.13 %	0.3 %
R33	1.5		0.23	1.8	0.13 %	1.0 %	3.0		5.7	8.7	0.23 %	0.3 %
R34	1.5		0.56	2.1	0.31 %	1.2 %	3.0		12.9	16.0	0.52 %	0.6 %
R35	1.2		2.06	3.2	1.14 %	1.8 %	2.3		26.8	29.1	1.07 %	1.2 %

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 ³)	Baseline air quality level (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)
H1	Scales Wood Ancient Woodland (ID 1102544)	Oxides of nitrogen (annual mean)	30	5.0	0.03	5.0	0.1 %	16.7 %
H2	Ancient Woodland (ID 1413140)			5.1	0.03	5.2	0.1 %	17.2 %
H3	Cragg/Holme/Birks Woods Ancient Woodland (ID 1102542)			5.4	0.07	5.5	0.2 %	18.3 %
H4	Ancient Woodland (ID 1413137)			4.9	0.05	4.9	0.2 %	16.4 %
H5	Ancient Woodland (ID 1413135)			4.9	0.04	4.9	0.1 %	16.4 %
H6	Ancient Woodland (ID 1413132)			4.8	0.09	4.9	0.3 %	16.3 %
H7	Ancient Woodland (ID 1413134)			4.8	0.07	4.9	0.2 %	16.3 %
H8	Far Holme Meadow SSSI			4.8	0.05	4.9	0.2 %	16.2 %
H9	Ancient Woodland (ID 1102554)			4.8	0.04	4.8	0.1 %	16.2 %
H10	Ancient Woodland (ID 1413131)			4.8	0.04	4.9	0.1 %	16.2 %
H11	Ancient Woodland (ID 1413130)			4.7	0.03	4.8	0.1 %	15.9 %
H12	Ancient Woodland (ID 1413128)			4.8	0.04	4.8	0.1 %	16.2 %
H13	Ancient Woodland (ID 1413126) and Helks Wood BHS			4.8	0.04	4.8	0.1 %	16.1 %
H14	Ancient Woodland (ID 1413125)			4.8	0.03	4.8	0.1 %	16.1 %
H15	Ancient Woodland (ID 1413123)			4.7	0.03	4.8	0.1 %	15.8 %
H16	Ancient Woodland (ID 1413120)			4.8	0.03	4.8	0.1 %	16.0 %
H17a	North Pennine Dales Meadows SAC			4.8	0.11	4.9	0.4 %	16.4 %
H17b				4.9	0.09	5.0	0.3 %	16.6 %
H17c				4.9	0.07	4.9	0.2 %	16.5 %
H18	Ancient Woodland (ID 1413096)			4.8	0.35	5.2	1.2 %	17.2 %
H19	Great Dunnow Wood Ancient Woodland (ID 1102670)	4.9	0.20	5.1	0.7 %	16.9 %		
H20a	Ashnott Wood Ancient Woodland (ID 1102518)	4.9	0.08	5.0	0.3 %	16.7 %		
H20b		4.9	0.08	5.0	0.3 %	16.7 %		
H20c		4.9	0.08	5.0	0.3 %	16.7 %		

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 (%)
H21a	Over Houses Great Wood BHS			4.8	0.10	4.9	0.3 %	16.4 %
H21b	Over Houses Great Wood BHS and Ancient Woodland (ID 1413134)			4.8	0.05	4.9	0.2 %	16.2 %
H22a	Goodber Common (incl Summersgill Fell and White Moss) BHS			5.0	0.05	5.0	0.2 %	16.8 %
H22b				4.8	0.03	4.9	0.1 %	16.3 %
H23	Lower Helks Pastures BHS			4.8	0.04	4.8	0.1 %	16.2 %
H24	Calf Hill and Cragg Woods SAC			5.6	0.01	5.6	0.0 %	18.7 %
H25	Crag House Roadside Verges BHS			4.9	0.08	5.0	0.3 %	16.6 %
H26	Ashnott Meadow BHS			4.9	0.06	5.0	0.2 %	16.7 %
H27	Bonstone Brook Pastures BHS			4.9	0.13	5.1	0.4 %	16.9 %
H28a	Waddington Fell Road, Roadside Verges BHS			6.5	0.27	6.8	0.9 %	22.7 %
H28b	Waddington Fell Road, Roadside Verges BHS			6.5	0.28	6.8	0.9 %	22.8 %
H29a	Birkett Fell, Hodder Bank Fell and Mosswaite Fell			4.8	0.14	5.0	0.5 %	16.5 %
H29b				4.9	0.12	5.0	0.4 %	16.6 %
H30a	Gibb's Wood and Bonestone Wood BHS			4.9	0.25	5.2	0.8 %	17.3 %
H30b				4.9	0.13	5.0	0.4 %	16.7 %
H31	Gamble Hole Farm Pasture BHS			4.7	1.53	6.3	5.1 %	20.9 %
H32	Sugar Loaf BHS			4.7	0.04	4.8	0.1 %	16.0 %
H33	Clerk Laithe BHS			4.9	0.18	5.0	0.6 %	16.8 %
H34	Great Dunnow Hill BHS			4.9	0.13	5.0	0.4 %	16.7 %
H35	Newton North Roadside Verges BHS			4.9	0.26	5.1	0.9 %	17.1 %
H36	Newton West Roadside Verges BHS			5.3	4.57	9.9	15.2 %	33.0 %
H37	Wray Wood Moor BHS			5.0	0.02	5.0	0.1 %	16.7 %
H38	Pike Gill Wood (Including Willock Close Wood and High Grasses Wood) BHS			5.0	0.02	5.0	0.1 %	16.8 %
H39	Cowkins Coppice BHS and Cragg/Holme/Birks Wood (ID 1102542)			5.1	0.06	5.1	0.2 %	17.1 %
H40a				4.9	0.05	4.9	0.2 %	16.5 %

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 (%)
H40b	Hole House and Lower House Grasslands BHS			4.9	0.05	4.9	0.2 %	16.4 %
H40c				4.8	0.05	4.9	0.2 %	16.2 %
H41a	Meadows Adjoining Far Holme Meadow SSSI BHS			4.8	0.05	4.9	0.2 %	16.2 %
H41b				4.8	0.05	4.9	0.2 %	16.2 %
H41c				4.8	0.04	4.9	0.1 %	16.2 %
H42a	Well Beck Wood (Including Helks Home Wood and Middlefield Wood) BHS			4.8	0.03	4.8	0.1 %	16.0 %
H42b				4.8	0.02	4.8	0.1 %	15.9 %
H42c				4.8	0.02	4.8	0.1 %	15.9 %
H43	New Barn Meadow, Low Gill BHS			4.7	0.04	4.8	0.1 %	15.9 %
H44	Foss Bank Wood, High Lot Wood, Over Wood and Mosit Shoe Wood BHS			4.7	0.04	4.8	0.1 %	15.9 %
H45	Bank Wood, High Lot Wood, Over Wood and Mosit Shoe Wood BHS			4.8	0.04	4.8	0.1 %	16.2 %
H46	Cragg Wood, Holme Wood, Birks Wood and Park House Wood BHS and Cragg/Holme/Birks Wood (ID: 1102542)			5.1	0.06	5.1	0.2 %	17.1 %
H47a	Bowland Fells SPA and Bowland Fells SSSI			5.0	0.01	5.0	0.0 %	16.8 %
H47b				4.9	0.01	4.9	0.0 %	16.3 %
H47c		4.6	0.02	4.6	0.1 %	15.5 %		
H47d		4.5	0.03	4.6	0.1 %	15.2 %		
H47e		5.7	0.02	5.7	0.1 %	19.0 %		
H47f		5.2	0.03	5.2	0.1 %	17.4 %		
H47g		4.9	0.04	4.9	0.1 %	16.5 %		
H47h		4.9	0.05	4.9	0.2 %	16.4 %		
H47i		4.6	0.06	4.7	0.2 %	15.6 %		
H47j		4.5	0.08	4.6	0.3 %	15.3 %		
H47k		4.5	0.11	4.6	0.4 %	15.2 %		

Table 8: Results of detailed assessment at protected conservation sites for maximum 24-hour mean NO_x concentrations

Location ID	Ecological site	Pollutant	EQS (µg/m ³)	Baseline air quality level (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)
H1	Scales Wood Ancient Woodland (ID 1102544)	Oxides of nitrogen (daily mean)	75	10.0	0.3	10.3	0.4 %	13.7 %
H2	Ancient Woodland (ID 1413140)			10.3	0.3	10.6	0.4 %	14.1 %
H3	Cragg/Holme/Birks Woods Ancient Woodland (ID 1102542)			10.9	0.4	11.2	0.5 %	15.0 %
H4	Ancient Woodland (ID 1413137)			9.8	0.4	10.1	0.5 %	13.5 %
H5	Ancient Woodland (ID 1413135)			9.8	0.4	10.2	0.5 %	13.5 %
H6	Ancient Woodland (ID 1413132)			9.6	0.4	10.0	0.6 %	13.4 %
H7	Ancient Woodland (ID 1413134)			9.6	0.4	10.0	0.5 %	13.3 %
H8	Far Holme Meadow SSSI			9.6	0.4	10.0	0.5 %	13.4 %
H9	Ancient Woodland (ID 1102554)			9.6	0.4	10.0	0.5 %	13.4 %
H10	Ancient Woodland (ID 1413131)			9.6	0.4	10.0	0.5 %	13.4 %
H11	Ancient Woodland (ID 1413130)			9.5	0.4	9.9	0.6 %	13.2 %
H12	Ancient Woodland (ID 1413128)			9.6	0.6	10.2	0.8 %	13.6 %
H13	Ancient Woodland (ID 1413126) and Helks			9.6	0.6	10.1	0.8 %	13.5 %
H14	Ancient Woodland (ID 1413125)			9.6	0.6	10.2	0.8 %	13.6 %
H15	Ancient Woodland (ID 1413123)			9.4	0.5	10.0	0.7 %	13.3 %
H16	Ancient Woodland (ID 1413120)			9.6	0.4	10.0	0.6 %	13.3 %
H17a	North Pennine Dales Meadows SAC			9.6	1.0	10.6	1.3 %	14.1 %
H17b				9.8	0.6	10.4	0.9 %	13.9 %
H17c				9.8	0.5	10.3	0.7 %	13.7 %
H18	Ancient Woodland (ID 1413096)			9.6	5.0	14.6	6.7 %	19.5 %
H19	Great Dunnaw Wood Ancient Woodland (ID			9.8	1.3	11.1	1.8 %	14.8 %
H20a	Ashnott Wood Ancient Woodland (ID 1102518)	9.9	1.5	11.3	1.9 %	15.1 %		
H20b		9.9	1.2	11.1	1.6 %	14.8 %		
H20c		9.9	1.2	11.1	1.6 %	14.8 %		
H21a	Over Houses Great Wood BHS	9.6	0.5	10.1	0.7 %	13.5 %		

Location ID	Ecological site	Pollutant	EQS (µg/m ³)	Baseline air quality level (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)
H21b	Over Houses Great Wood BHS and Ancient Woodland (ID 1413134)			9.6	0.4	10.0	0.5 %	13.3 %
H22a	Goodber Common (incl Summersgill Fell and White Moss) BHS			10.0	0.5	10.5	0.7 %	14.0 %
H22b				9.7	0.3	10.0	0.4 %	13.4 %
H23	Lower Helks Pastures BHS			9.6	0.7	10.3	0.9 %	13.7 %
H24	Calf Hill and Craag Woods SAC			11.2	0.2	11.4	0.3 %	15.2 %
H25	Craa House Roadside Verges BHS			9.8	1.2	11.0	1.6 %	14.6 %
H26	Ashnott Meadow BHS			9.9	1.1	10.9	1.4 %	14.6 %
H27	Bonstone Brook Pastures BHS			9.9	2.1	12.0	2.8 %	16.0 %
H28a	Waddington Fell Road, Roadside Verges BHS			13.1	2.0	15.1	2.7 %	20.1 %
H28b	Waddington Fell Road, Roadside Verges BHS			13.1	1.9	15.0	2.5 %	20.0 %
H29a	Birkett Fell, Hodder Bank Fell and Mosswaite Fell			9.6	2.5	12.1	3.4 %	16.2 %
H29b				9.8	1.8	11.6	2.4 %	15.4 %
H30a	Gibb's Wood and Bonestone Wood BHS			9.9	3.6	13.4	4.7 %	17.9 %
H30b				9.8	2.8	12.6	3.8 %	16.8 %
H31	Gamble Hole Farm Pasture BHS			9.5	15.3	24.7	20.3 %	32.9 %
H32	Sugar Loaf BHS			9.5	1.2	10.7	1.7 %	14.3 %
H33	Clerk Laithe BHS			9.7	1.1	10.8	1.4 %	14.4 %
H34	Great Dunnaw Hill BHS			9.8	0.8	10.5	1.0 %	14.0 %
H35	Newton North Roadside Verges BHS			9.7	1.7	11.4	2.2 %	15.2 %
H36	Newton West Roadside Verges BHS			10.6	26.7	37.3	35.6 %	49.7 %
H37	Wray Wood Moor BHS			10.0	0.2	10.2	0.3 %	13.6 %
H38	Pike Gill Wood (Including Willock Close Wood and High Grasses Wood) BHS			10.0	0.4	10.5	0.6 %	14.0 %
H39	Cowkins Coppice BHS and Cragg/Holme/Birks Wood (ID 1102542)			10.1	0.5	10.6	0.6 %	14.1 %
H40a	Hole House and Lower House Grasslands BHS			9.8	0.4	10.1	0.5 %	13.5 %
H40b				9.8	0.4	10.1	0.5 %	13.5 %

Location ID	Ecological site	Pollutant	EQS (µg/m ³)	Baseline air quality level (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)
H40c				9.6	0.4	10.0	0.5 %	13.3 %
H41a	Meadows Adjoining Far Holme Meadow SSSI BHS			9.6	0.4	10.0	0.5 %	13.3 %
H41b				9.6	0.4	10.0	0.5 %	13.4 %
H41c				9.6	0.5	10.1	0.7 %	13.5 %
H42a		Well Beck Wood (Including Helks Home Wood and Middlefield Wood) BHS			9.6	0.4	10.0	0.6 %
H42b				9.5	0.4	9.9	0.5 %	13.2 %
H42c				9.5	0.3	9.9	0.5 %	13.1 %
H43	New Barn Meadow. Low Gill BHS			9.5	0.4	9.9	0.6 %	13.2 %
H44	Foss Bank Wood, High Lot Wood, Over Wood and Mosit Shoe Wood BHS			9.5	0.4	9.9	0.6 %	13.2 %
H45	Bank Wood, High Lot Wood, Over Wood and Mosit Shoe Wood BHS			9.6	0.4	10.0	0.5 %	13.4 %
H46	Cragg Wood, Holme Wood, Birks Wood and Park House Wood BHS and Cragg/Holme/Birks			10.1	0.6	10.7	0.8 %	14.3 %
H47a	Bowland Fells SPA and Bowland Fells SSSI			10.1	0.2	10.3	0.3 %	13.7 %
H47b				9.7	0.2	9.9	0.3 %	13.3 %
H47c				9.2	0.3	9.5	0.4 %	12.7 %
H47d				9.1	0.4	9.5	0.6 %	12.7 %
H47e				11.3	0.4	11.7	1.3 %	39.1 %
H47f				10.4	0.5	10.9	1.8 %	36.5 %
H47g				9.8	0.9	10.7	2.9 %	35.6 %
H47h				9.7	1.1	10.8	3.6 %	36.1 %
H47i				9.2	1.1	10.4	3.8 %	34.6 %
H47j				9.0	1.1	10.1	3.6 %	33.6 %
H47k				8.9	1.3	10.2	4.4 %	34.1 %

Table 9: Results of detailed assessment at protected conservation sites for annual SO₂ concentrations

Location ID	Ecological site	Pollutant	EQS (µg/m ³)	Baseline air quality level (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)
H1	Scales Wood Ancient Woodland (ID 1102544)	Sulphur dioxide (annual mean)	10	1.8	0.02	1.8	0.2 %	18.1 %
H2	Ancient Woodland (ID 1413140)			1.8	0.02	1.8	0.2 %	18.1 %
H3	Cragg/Holme/Birks Woods Ancient Woodland (ID 1102542)			1.8	0.06	1.8	0.6 %	18.4 %
H4	Ancient Woodland (ID 1413137)			1.8	0.04	1.8	0.4 %	18.2 %
H5	Ancient Woodland (ID 1413135)			1.8	0.03	1.8	0.3 %	18.1 %
H6	Ancient Woodland (ID 1413132)			1.8	0.08	1.8	0.8 %	18.5 %
H7	Ancient Woodland (ID 1413134)			1.8	0.06	1.8	0.6 %	18.3 %
H8	Far Holme Meadow SSSI			1.8	0.04	1.8	0.4 %	18.1 %
H9	Ancient Woodland (ID 1102554)			1.8	0.03	1.8	0.3 %	18.0 %
H10	Ancient Woodland (ID 1413131)			1.8	0.03	1.8	0.3 %	18.0 %
H11	Ancient Woodland (ID 1413130)			1.8	0.02	1.8	0.2 %	17.9 %
H12	Ancient Woodland (ID 1413128)			1.8	0.03	1.8	0.3 %	18.0 %
H13	Ancient Woodland (ID 1413126) and Helks			1.8	0.03	1.8	0.3 %	18.1 %
H14	Ancient Woodland (ID 1413125)			1.8	0.03	1.8	0.3 %	18.1 %
H15	Ancient Woodland (ID 1413123)			1.8	0.02	1.8	0.2 %	18.0 %
H16	Ancient Woodland (ID 1413120)			1.8	0.02	1.8	0.2 %	18.0 %
H17a	North Pennine Dales Meadows SAC			2.4	0.07	2.4	0.7 %	24.4 %
H17b				2.4	0.05	2.5	0.5 %	24.9 %
H17c				2.6	0.04	2.6	0.4 %	26.5 %
H18	Ancient Woodland (ID 1413096)			2.5	0.20	2.7	2.0 %	27.1 %
H19	Great Dunnov Wood Ancient Woodland (ID			2.5	0.12	2.7	1.2 %	26.5 %
H20a	Ashnott Wood Ancient Woodland (ID 1102518)	2.6	0.05	2.6	0.5 %	26.0 %		
H20b		2.6	0.06	2.6	0.6 %	26.1 %		
H20c		2.6	0.06	2.6	0.6 %	26.1 %		
H21a	Over Houses Great Wood BHS	1.8	0.09	1.9	0.9 %	18.6 %		
H21b	Over Houses Great Wood BHS and Ancient Woodland (ID 1413134)	1.8	0.04	1.8	0.4 %	18.1 %		

Location ID	Ecological site	Pollutant	EQS (µg/m ³)	Baseline air quality level (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)
H22a	Goodber Common (incl Summersgill Fell and White Moss) BHS			1.8	0.04	1.8	0.4 %	18.2 %
H22b				1.8	0.02	1.8	0.2 %	18.0 %
H23	Lower Helks Pastures BHS			1.8	0.03	1.8	0.3 %	18.0 %
H24	Calf Hill and Craag Woods SAC			2.0	0.01	2.0	0.1 %	20.2 %
H25	Craa House Roadside Verges BHS			2.5	0.05	2.6	0.5 %	25.9 %
H26	Ashnott Meadow BHS			2.6	0.04	2.6	0.4 %	25.9 %
H27	Bonstone Brook Pastures BHS			2.6	0.09	2.6	0.9 %	26.4 %
H28a	Waddington Fell Road. Roadside Verges BHS			2.5	0.16	2.7	1.6 %	27.0 %
H28b	Waddington Fell Road. Roadside Verges BHS			2.5	0.17	2.7	1.7 %	27.1 %
H29a	Birkett Fell, Hodder Bank Fell and Mosswaite Fell			2.5	0.08	2.6	0.8 %	26.0 %
H29b				2.5	0.07	2.6	0.7 %	26.0 %
H30a	Gibb's Wood and Bonestone Wood BHS			2.6	0.21	2.8	2.1 %	27.6 %
H30b				2.5	0.09	2.6	0.9 %	26.2 %
H31	Gamble Hole Farm Pasture BHS			2.5	0.85	3.4	8.5 %	33.6 %
H32	Sugar Loaf BHS			2.5	0.03	2.5	0.3 %	25.4 %
H33	Clerk Laithe BHS			2.5	0.10	2.6	1.0 %	26.4 %
H34	Great Dunnaw Hill BHS			2.5	0.07	2.6	0.7 %	26.0 %
H35	Newton North Roadside Verges BHS			2.5	0.16	2.7	1.6 %	27.0 %
H36	Newton West Roadside Verges BHS			2.5	2.51	5.0	25.1 %	50.5 %
H37	Wrav Wood Moor BHS			1.8	0.02	1.8	0.2 %	18.1 %
H38	Pike Gill Wood (Including Willock Close Wood and High Grasses Wood) BHS			1.8	0.02	1.8	0.2 %	18.1 %
H39	Cowkins Coppice BHS and Cragg/Holme/Birks Wood (ID 1102542)	1.8	0.05	1.8	0.5 %	18.3 %		
H40a	Hole House and Lower House Grasslands BHS	1.8	0.04	1.8	0.4 %	18.2 %		
H40b		1.8	0.04	1.8	0.4 %	18.2 %		
H40c		1.8	0.04	1.8	0.4 %	18.1 %		
H41a		1.8	0.04	1.8	0.4 %	18.1 %		

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 (%)
H41b	Meadows Adjoining Far Holme Meadow SSSI BHS			1.8	0.04	1.8	0.4 %	18.1 %
H41c				1.8	0.04	1.8	0.4 %	18.1 %
H42a	Well Beck Wood (Including Helks Home Wood and Middlefield Wood) BHS			1.8	0.02	1.8	0.2 %	18.0 %
H42b				1.8	0.01	1.8	0.1 %	17.9 %
H42c				1.8	0.01	1.8	0.1 %	17.9 %
H43	New Barn Meadow, Low Gill BHS			1.8	0.03	1.8	0.3 %	18.0 %
H44	Foss Bank Wood, High Lot Wood, Over Wood and Mosit Shoe Wood BHS			1.8	0.03	1.8	0.3 %	18.0 %
H45	Bank Wood, High Lot Wood, Over Wood and Mosit Shoe Wood BHS			1.8	0.03	1.8	0.3 %	18.0 %
H46	Cragg Wood, Holme Wood, Birks Wood and Park House Wood BHS and Cragg/Holme/Birks			1.8	0.05	1.8	0.5 %	18.3 %
H47a	Bowland Fells SPA and Bowland Fells SSSI			2.0	0.01	2.0	0.1 %	19.8 %
H47b				2.0	0.01	2.0	0.1 %	19.7 %
H47c				2.0	0.01	2.0	0.1 %	20.2 %
H47d				1.8	0.02	1.8	0.2 %	17.9 %
H47e				2.3	0.01	2.3	0.1 %	22.7 %
H47f		2.3	0.02	2.3	0.2 %	23.3 %		
H47g		2.3	0.02	2.3	0.2 %	23.0 %		
H47h		2.3	0.03	2.3	0.3 %	23.1 %		
H47i		2.1	0.04	2.2	0.4 %	21.6 %		
H47j		2.3	0.05	2.4	0.5 %	23.9 %		
H47k		2.3	0.06	2.4	0.6 %	23.9 %		

Table 10: Results of detailed assessment at protected conservation sites for annual mean NH₃ concentrations

Location ID	Ecological site	Pollutant	EQS (µg/m ³)	Baseline air quality level (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)	
H1	Scales Wood Ancient Woodland (ID 1102544)	Ammonia (annual mean)	1	2.1	0.01	2.1	0.8 %	209.8 %	
H2	Ancient Woodland (ID 1413140)			2.1	0.01	2.1	0.6 %	209.6 %	
H3	Cragg/Holme/Birks Woods Ancient Woodland (ID 1102542)			2.1	0.02	2.1	2.0 %	211.0 %	
H4	Ancient Woodland (ID 1413137)			2.1	0.01	2.1	1.3 %	210.3 %	
H5	Ancient Woodland (ID 1413135)			2.1	0.01	2.1	1.1 %	210.1 %	
H6	Ancient Woodland (ID 1413132)			2.1	0.03	2.1	2.7 %	211.7 %	
H7	Ancient Woodland (ID 1413134)			2.1	0.02	2.1	2.2 %	211.2 %	
H8	Far Holme Meadow SSSI			3	2.1	0.01	2.1	0.4 %	70.1 %
H9	Ancient Woodland (ID 1102554)			1	2.1	0.01	2.1	1.0 %	210.0 %
H10	Ancient Woodland (ID 1413131)				2.1	0.01	2.1	1.1 %	210.1 %
H11	Ancient Woodland (ID 1413130)				1.8	0.01	1.8	0.8 %	182.8 %
H12	Ancient Woodland (ID 1413128)				2.1	0.01	2.1	1.0 %	210.0 %
H13	Ancient Woodland (ID 1413126) and Helks				1.1	0.01	1.1	1.1 %	113.1 %
H14	Ancient Woodland (ID 1413125)				1.1	0.01	1.1	0.9 %	112.9 %
H15	Ancient Woodland (ID 1413123)				1.2	0.01	1.2	0.7 %	115.7 %
H16	Ancient Woodland (ID 1413120)			1.1	0.01	1.1	0.6 %	112.6 %	
H17a	North Pennine Dales Meadows SAC			3	1.6	0.02	1.6	0.8 %	54.8 %
H17b					1.6	0.02	1.6	0.6 %	54.6 %
H17c					1.6	0.01	1.6	0.4 %	54.4 %
H18	Ancient Woodland (ID 1413096)			1	1.2	0.07	1.2	6.6 %	121.6 %
H19	Great Dunnaw Wood Ancient Woodland (ID				1.6	0.04	1.7	4.1 %	166.1 %
H20a	Ashnott Wood Ancient Woodland (ID 1102518)	1.5	0.02		1.5	1.8 %	153.8 %		
H20b		1.5	0.02		1.5	2.0 %	154.0 %		
H20c		1.5	0.02		1.5	2.0 %	154.0 %		
H21a	Over Houses Great Wood BHS	2.1	0.03	2.1	3.0 %	212.0 %			

Location ID	Ecological site	Pollutant	EQS (µg/m ³)	Baseline air quality level (µg/m ³)	PC (µg/m ³)	PEC (µg/m ³)	PC/EQS (%)	PEC/EQS (%)
H21b	Over Houses Great Wood BHS and Ancient Woodland (ID 1413134)			2.1	0.02	2.1	1.5 %	210.5 %
H22a	Goodber Common (incl Summersgill Fell and White Moss) BHS			2.1	0.01	2.1	1.4 %	210.4 %
H22b				1.1	0.01	1.1	0.6 %	112.6 %
H23	Lower Helks Pastures BHS			2.1	0.01	2.1	1.1 %	210.1 %
H24	Calf Hill and Craag Woods SAC			1.3	0.00	1.3	0.2 %	128.2 %
H25	Craag House Roadside Verges BHS			1.5	0.02	1.5	1.8 %	153.8 %
H26	Ashnott Meadow BHS			1.5	0.01	1.5	1.4 %	153.4 %
H27	Bonstone Brook Pastures BHS			1.5	0.03	1.6	3.0 %	155.0 %
H28a	Waddington Fell Road, Roadside Verges BHS			1.5	0.05	1.6	5.4 %	159.4 %
H28b	Waddington Fell Road, Roadside Verges BHS			1.5	0.06	1.6	5.7 %	159.7 %
H29a	Birkett Fell, Hodder Bank Fell and Mosswaite Fell			1.5	0.03	1.5	2.7 %	154.7 %
H29b				1.5	0.02	1.5	2.3 %	154.3 %
H30a	Gibb's Wood and Bonestone Wood BHS			1.5	0.07	1.6	7.1 %	159.1 %
H30b				1.5	0.03	1.5	3.0 %	155.0 %
H31	Gamble Hole Farm Pasture BHS			1.2	0.28	1.4	27.9 %	142.9 %
H32	Sugar Loaf BHS			1.2	0.01	1.2	0.8 %	115.8 %
H33	Clerk Laithe BHS			1.2	0.03	1.2	3.2 %	118.2 %
H34	Great Dunnov Hill BHS			1.6	0.02	1.6	2.4 %	164.4 %
H35	Newton North Roadside Verges BHS			1.2	0.05	1.2	5.3 %	120.3 %
H36	Newton West Roadside Verges BHS			1.2	0.83	2.0	82.5 %	197.5 %
H37	Wray Wood Moor BHS			2.1	0.01	2.1	0.6 %	209.6 %
H38	Pike Gill Wood (Including Willock Close Wood and High Grasses Wood) BHS			2.1	0.01	2.1	0.5 %	209.5 %
H39	Cowkins Coppice BHS and Cragg/Holme/Birks Wood (ID 1102542)			2.1	0.02	2.1	1.7 %	210.7 %
H40a	Hole House and Lower House Grasslands BHS			2.1	0.02	2.1	1.5 %	210.5 %
H40b				2.1	0.02	2.1	1.5 %	210.5 %

Location ID	Ecological site	Pollutant	EQS (µg/m³)	Baseline air quality level (µg/m³)	PC (µg/m³)	PEC (µg/m³)	PC/EQS (%)	PEC/EQS (%)
H40c	Meadows Adjoining Far Holme Meadow SSSI BHS	3	3	2.1	0.01	2.1	1.3 %	210.3 %
H41a				2.1	0.01	2.1	1.4 %	210.4 %
H41b				2.1	0.01	2.1	1.3 %	210.3 %
H41c				2.1	0.01	2.1	1.2 %	210.2 %
H42a	Well Beck Wood (Including Helks Home Wood and Middlefield Wood) BHS			1.1	0.01	1.1	0.5 %	112.5 %
H42b				1.1	0.00	1.1	0.4 %	112.4 %
H42c				1.1	0.00	1.1	0.4 %	112.4 %
H43	New Barn Meadow, Low Gill BHS			2.1	0.01	2.1	0.9 %	209.9 %
H44	Foss Bank Wood, High Lot Wood, Over Wood and Mosit Shoe Wood BHS			1.1	0.01	1.1	0.9 %	113.9 %
H45	Bank Wood, High Lot Wood, Over Wood and Mosit Shoe Wood BHS			2.1	0.01	2.1	1.1 %	210.1 %
H46	Cragg Wood, Holme Wood, Birks Wood and Park House Wood BHS and Cragg/Holme/Birks			2.1	0.02	2.1	1.6 %	210.6 %
H47a	Bowland Fells SPA and Bowland Fells SSSI			1.5	0.00	1.5	0.1 %	51.1 %
H47b				1.3	0.00	1.3	0.1 %	42.8 %
H47c		1.3	0.00	1.3	0.1 %	42.8 %		
H47d		1.3	0.01	1.3	0.2 %	44.2 %		
H47e		1.6	0.00	1.6	0.2 %	53.2 %		
H47f		1.6	0.01	1.6	0.2 %	53.2 %		
H47g		1.6	0.01	1.6	0.3 %	53.3 %		
H47h		1.4	0.01	1.4	0.3 %	46.3 %		
H47i		1.4	0.01	1.4	0.4 %	46.4 %		
H47j		1.4	0.02	1.4	0.5 %	46.5 %		
H47k		1.0	0.02	1.0	0.7 %	33.7 %		

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	Scales Wood Ancient Woodland (ID 1102544)	Tall	1.7	0.5	2.2	2.6	0.3	0.01	2.9	0.5 %	133 %
H2	Ancient Woodland (ID 1413140)	Tall	2.9	0.4	3.2	2.6	0.3	0.01	2.9	0.3 %	90 %
H3	Cragg/Holme/Birks Woods Ancient Woodland (ID 1102542)	Tall	2.9	0.4	3.3	2.6	0.3	0.03	2.9	0.8 %	90 %
H4	Ancient Woodland (ID 1413137)	Tall	2.9	0.4	3.3	2.6	0.3	0.02	2.9	0.5 %	89 %
H5	Ancient Woodland (ID 1413135)	Tall	2.9	0.4	3.3	2.6	0.3	0.01	2.9	0.4 %	89 %
H6	Ancient Woodland (ID 1413132)	Tall	1.4	0.3	1.7	2.6	0.3	0.03	2.9	2.1 %	176 %
H7	Ancient Woodland (ID 1413134)	Tall	1.4	0.3	1.7	2.6	0.3	0.03	2.9	1.7 %	176 %
H8	Far Holme Meadow SSSI	Short	0.2	0.4	0.6	1.8	0.3	0.01	2.1	1.6 %	352 %
H9	Ancient Woodland (ID 1102554)	Tall	1.4	0.3	1.7	2.6	0.3	0.01	2.9	0.8 %	175 %
H10	Ancient Woodland (ID 1413131)	Tall	1.4	0.3	1.7	2.6	0.3	0.01	2.9	0.9 %	175 %
H11	Ancient Woodland (ID 1413130)	Tall	3.0	0.4	3.4	2.6	0.3	0.01	3.0	0.3 %	89 %
H12	Ancient Woodland (ID 1413128)	Tall	1.4	0.3	1.7	2.6	0.3	0.01	2.9	0.8 %	175 %
H13	Ancient Woodland (ID 1413126) and Helks Wood BHS	Tall	3.0	0.4	3.4	2.3	0.4	0.01	2.7	0.4 %	78 %
H14	Ancient Woodland (ID 1413125)	Tall	3.0	0.4	3.4	2.3	0.4	0.01	2.7	0.3 %	78 %
H15	Ancient Woodland (ID 1413123)	Tall	3.2	0.4	3.5	2.6	0.5	0.01	3.1	0.3 %	87 %
H16	Ancient Woodland (ID 1413120)	Tall	3.0	0.4	3.4	2.3	0.4	0.01	2.6	0.2 %	78 %

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 (%)
H17a	North Pennine Dales Meadows SAC	Short	1.6	0.4	2.1	1.9	0.3	0.017	2.2	0.8 %	107 %
H17b	North Pennine Dales Meadows SAC	Short	1.6	0.4	2.1	1.9	0.3	0.013	2.2	0.6 %	107 %
H17c	North Pennine Dales Meadows SAC	Short	1.6	0.4	2.1	1.9	0.3	0.010	2.2	0.5 %	107 %
H18	Ancient Woodland (ID 1413096)	Tall	3.1	0.4	3.4	2.5	0.4	0.089	3.0	2.6 %	88 %
H19	Great Dunnaw Wood Ancient Woodland (ID 1102670)	Tall	3.3	0.4	3.7	2.7	0.4	0.054	3.1	1.5 %	85 %
H20a	Ashnott Wood Ancient Woodland (ID 1102518)	Tall	1.7	0.5	2.2	2.4	0.3	0.023	2.7	1.1 %	126 %
H20b	Ashnott Wood Ancient Woodland (ID 1102518)	Tall	1.7	0.5	2.2	2.4	0.3	0.026	2.7	1.2 %	126 %
H20c	Ashnott Wood Ancient Woodland (ID 1102518)	Tall	1.7	0.5	2.2	2.4	0.3	0.026	2.7	1.2 %	126 %
H21a	Over Houses Great Wood BHS	Tall	1.4	0.3	1.7	2.6	0.3	0.04	2.9	2.3 %	177 %
H21b	Over Houses Great Wood BHS and Ancient Woodland (ID 1413134)	Tall	1.4	0.3	1.7	2.6	0.3	0.02	2.9	1.2 %	176 %
H22a	Goodber Common (incl Summersgill Fell and White Moss) BHS	Short	0.5	0.3	0.9	1.8	0.3	0.01	2.0	1.2 %	235 %
H22b	Goodber Common (incl Summersgill Fell and White Moss) BHS	Short	0.6	0.3	0.9	1.6	0.3	0.00	1.9	0.5 %	218 %
H23	Lower Helks Pastures BHS	Short	0.2	0.4	0.6	1.8	0.3	0.01	2.0	1.4 %	333 %
H24	Calf Hill and Cragg Woods SAC	Tall	2.8	0.4	3.2	2.1	0.3	0.00	2.4	0.1 %	75 %

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 (%)
H25	Crag House Roadside Verges BHS	Short	4.0	1.2	5.2	1.7	0.3	0.014	2.0	0.3 %	38 %
H26	Ashnott Meadow BHS	Tall	2.9	0.4	3.3	2.5	0.4	0.018	2.9	0.5 %	89 %
H27	Bonstone Brook Pastures BHS	Short	0.5	0.6	1.0	1.7	0.3	0.023	2.0	2.2 %	190 %
H28a	Waddington Fell Road, Roadside Verges BHS	Short	4.0	1.1	5.1	1.8	0.3	0.041	2.1	0.8 %	41 %
H28b	Waddington Fell Road, Roadside Verges BHS	Short	4.0	1.1	5.1	1.8	0.3	0.043	2.1	0.8 %	41 %
H29a	Birkett Fell, Hodder Bank Fell and Mosswaite Fell	Short	0.5	0.3	0.8	1.7	0.3	0.021	2.0	2.6 %	244 %
H29b	Birkett Fell, Hodder Bank Fell and Mosswaite Fell	Short	0.5	0.3	0.8	1.7	0.3	0.018	2.0	2.2 %	252 %
H30a	Gibb's Wood and Bonestone Wood BHS	Tall	1.7	0.5	2.2	2.4	0.3	0.092	2.8	4.2 %	129 %
H30b	Gibb's Wood and Bonestone Wood BHS	Tall	1.7	0.5	2.2	2.4	0.3	0.039	2.8	1.8 %	126 %
H31	Gamble Hole Farm Pasture BHS	Short	Not sensitive to acid			1.9	0.4	0.214	2.4	N/A	N/A
H32	Sugar Loaf BHS	Short	4.00	1.07	5.07	1.9	0.4	0.006	2.2	0.1 %	44 %
H33	Clerk Laithe BHS	Short	4.00	1.07	5.07	1.9	0.4	0.025	2.2	0.5 %	44 %
H34	Great Dunnaw Hill BHS	Short	4.00	1.07	5.07	1.9	0.3	0.018	2.2	0.4 %	44 %
H35	Newton North Roadside Verges BHS	Short	4.0	1.1	5.1	1.9	0.4	0.040	2.3	0.8 %	45 %
H36	Newton West Roadside Verges BHS	Short	4.0	1.1	5.1	1.9	0.4	0.634	2.9	12.5 %	56 %
H37	Wray Wood Moor BHS	Short	No critical load			1.8	0.3	0.005	2.0	N/A	N/A

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 (%)
H38	Pike Gill Wood (Including Willock Close Wood and High Grasses Wood) BHS	Tall	2.90	0.36	3.25	2.6	0.3	0.007	2.9	0.2 %	89 %
H39	Cowkins Coppice BHS and Cragg/Holme/Birks Wood (ID 1102542)	Tall	2.91	0.36	3.26	2.6	0.3	0.022	2.9	0.7 %	89 %
H40a	Hole House and Lower House Grasslands BHS	Short	4.00	1.07	5.07	1.8	0.3	0.011	2.0	0.2 %	40 %
H40b		Short	4.00	1.07	5.07	1.8	0.3	0.011	2.0	0.2 %	40 %
H40c		Short	4.00	1.00	5.00	1.8	0.3	0.010	2.0	0.2 %	40 %
H41a	Meadows Adjoining Far Holme Meadow SSSI BHS	Short	4.00	1.00	5.00	1.8	0.3	0.010	2.0	0.2 %	40 %
H41b		Short	4.00	1.00	5.00	1.8	0.3	0.010	2.0	0.2 %	40 %
H41c		Short	4.00	1.00	5.00	1.8	0.3	0.009	2.0	0.2 %	40 %
H42a	Well Beck Wood (Including Helks Home Wood and Middlefield Wood) BHS	Tall	3.03	0.36	3.38	2.3	0.4	0.007	2.6	0.2 %	78 %
H42b		Tall	3.04	0.36	3.40	2.3	0.4	0.006	2.6	0.2 %	78 %
H42c		Tall	3.04	0.36	3.40	2.3	0.4	0.005	2.6	0.2 %	78 %
H43	New Barn Meadow, Low Gill BHS	Short	4.00	1.07	5.07	1.8	0.3	0.007	2.1	0.1 %	42 %
H44	Foss Bank Wood, High Lot Wood, Over Wood and Mosit Shoe Wood BHS	Tall	3.00	0.36	3.36	2.6	0.3	0.011	3.0	0.3 %	89 %
H45	Bank Wood, High Lot Wood, Over Wood and Mosit Shoe Wood BHS	Tall	1.37	0.29	1.66	2.6	0.3	0.014	2.9	0.9 %	175 %
H46	Cragg Wood, Holme Wood, Birks Wood and Park House Wood BHS and Cragg/Holme/Birks Wood (ID 1102542)	Tall	2.91	0.36	3.26	2.6	0.3	0.021	2.9	0.6 %	89 %

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 (%)
H47a	Bowland Fells SPA and Bowland Fells SSSI	Short	0.5	0.9	1.3	1.5	0.3	0.002	1.8	0.1 %	139 %
H47b		Short	0.5	0.9	1.3	1.7	0.3	0.002	2.0	0.1 %	154 %
H47c		Short	0.7	0.6	1.3	1.7	0.3	0.003	2.0	0.2 %	154 %
H47d		Short	1.7	0.7	2.4	2.0	0.4	0.005	2.4	0.2 %	100 %
H47e		Short	0.5	0.9	1.3	1.8	0.3	0.004	2.1	0.3 %	162 %
H47f		Short	0.5	0.9	1.3	1.8	0.3	0.005	2.1	0.4 %	162 %
H47g		Short	0.5	0.9	1.3	1.8	0.3	0.006	2.1	0.5 %	162 %
H47h		Short	1.6	0.7	2.4	2.0	0.4	0.007	2.4	0.3 %	100 %
H47i		Short	0.6	0.6	1.3	2.0	0.4	0.009	2.4	0.7 %	185 %
H47j		Short	0.6	0.6	1.3	2.0	0.4	0.012	2.4	0.9 %	186 %
H47k		Short	0.7	0.6	1.4	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) (kgN/ha/year)	Nitrogen Deposition (kgN/ha/year)				
				Existing Deposition	PC	PEC	PC/CL (%)	PEC/CL (%)
H1	Scales Wood Ancient Woodland (ID 1102544)	Tall	10	36.4	0.066	36.5	0.7 %	365 %
H2	Ancient Woodland (ID 1413140)	Tall	10	36.4	0.054	36.5	0.5 %	365 %
H3	Cragg/Holme/Birks Woods Ancient Woodland (ID 1102542)	Tall	10	36.4	0.167	36.6	1.7 %	366 %
H4	Ancient Woodland (ID 1413137)	Tall	10	36.4	0.109	36.5	1.1 %	365 %
H5	Ancient Woodland (ID 1413135)	Tall	10	36.4	0.093	36.5	0.9 %	365 %
H6	Ancient Woodland (ID 1413132)	Tall	10	36.4	0.227	36.6	2.3 %	366 %
H7	Ancient Woodland (ID 1413134)	Tall	10	36.4	0.183	36.6	1.8 %	366 %
H8	Far Holme Meadow SSSI	Short	10	24.6	0.074	24.7	0.7 %	247 %
H9	Ancient Woodland (ID 1102554)	Tall	10	36.4	0.090	36.5	0.9 %	365 %
H10	Ancient Woodland (ID 1413131)	Tall	10	36.4	0.098	36.5	1.0 %	365 %
H11	Ancient Woodland (ID 1413130)	Tall	10	36.8	0.068	36.9	0.7 %	369 %
H12	Ancient Woodland (ID 1413128)	Tall	10	36.4	0.083	36.5	0.8 %	365 %
H13	Ancient Woodland (ID 1413126) and Helks Wood BHS	Tall	10	31.8	0.092	31.87	0.9 %	319 %
H14	Ancient Woodland (ID 1413125)	Tall	10	31.8	0.074	31.85	0.7 %	319 %
H15	Ancient Woodland (ID 1413123)	Tall	10	36.4	0.062	36.5	0.6 %	365 %
H16	Ancient Woodland (ID 1413120)	Tall	10	31.8	0.049	31.8	0.5 %	318 %
H17a	North Pennine Dales Meadows SAC	Short	10	26.6	0.13	26.7	1.3 %	267 %

Location ID	Ecological site	Vegetation Type	Critical Load (CL) (kgN/ha/year)	Nitrogen Deposition (kgN/ha/year)				
				Existing Deposition	PC	PEC	PC/CL (%)	PEC/CL (%)
H17b		Short	10	26.6	0.10	26.7	1.0 %	267 %
H17c		Short	10	26.6	0.07	26.7	0.7 %	267 %
H18	Ancient Woodland (ID 1413096)	Tall	10	35.1	0.58	35.7	5.8 %	357 %
H19	Great Dunnow Wood Ancient Woodland (ID 1102670)	Tall	10	37.2	0.36	37.6	3.6 %	376 %
H20a	Ashnott Wood Ancient Woodland (ID 1102518)	Tall	10	33.5	0.15	33.6	1.5 %	336 %
H20b		Tall	10	33.5	0.17	33.6	1.7 %	336 %
H20c		Tall	10	33.5	0.17	33.6	1.7 %	336 %
H21a	Over Houses Great Wood BHS	Tall	10	36.4	0.255	36.7	2.5 %	367 %
H21b	Over Houses Great Wood BHS and Ancient Woodland (ID 1413134)	Tall	10	36.4	0.131	36.5	1.3 %	365 %
H22a	Goodber Common (incl Summersgill Fell and White Moss) BHS	Short	5	24.6	0.076	24.7	1.5 %	494 %
H22b		Short	5	22.8	0.035	22.9	0.7 %	457 %
H23	Lower Helks Pastures BHS	Short	10	24.6	0.062	24.7	0.6 %	247 %
H24	Calf Hill and Cragg Woods SAC	Tall	10	29.3	0.017	29.3	0.2 %	293 %
H25	Crag House Roadside Verges BHS	Short	20	23.4	0.10	23.5	0.5 %	117 %
H26	Ashnott Meadow BHS	Tall	10	35.3	0.12	35.4	1.2 %	354 %
H27	Bonstone Brook Pastures BHS	Short	10	23.4	0.17	23.6	1.7 %	236 %
H28a	Waddington Fell Road, Roadside Verges BHS	Short	20	24.5	0.31	24.8	1.5 %	124 %
H28b		Short	20	24.5	0.32	24.8	1.6 %	124 %

Location ID	Ecological site	Vegetation Type	Critical Load (CL) (kgN/ha/year)	Nitrogen Deposition (kgN/ha/year)				
				Existing Deposition	PC	PEC	PC/CL (%)	PEC/CL (%)
H29a	Birkett Fell, Hodder Bank Fell and Mosswaite Fell	Short	5	23.4	0.16	23.5	3.1 %	471 %
H29b		Short	5	23.4	0.13	23.5	2.6 %	470 %
H30a	Gibb's Wood and Bonestone Wood BHS	Tall	10	33.5	0.61	34.1	6.1 %	341 %
H30b		Tall	10	33.5	0.26	33.7	2.6 %	337 %
H31	Gamble Hole Farm Pasture BHS	Short	15	25.9	1.60	27.5	10.7 %	183 %
H32	Sugar Loaf BHS	Short	15	25.9	0.048	25.9	0.3 %	173 %
H33	Clerk Laithe BHS	Short	15	25.9	0.187	26.1	1.2 %	174 %
H34	Great Dunnaw Hill BHS	Short	15	26.6	0.137	26.7	0.9 %	178 %
H35	Newton North Roadside Verges BHS	Short	20	25.9	0.30	26.2	1.5 %	131 %
H36	Newton West Roadside Verges BHS	Short	20	25.9	4.75	30.7	23.8 %	153 %
H37	Wray Wood Moor BHS	Short	10	24.6	0.036	24.7	0.4 %	247 %
H38	Pike Gill Wood (Including Willock Close Wood and High Grasses Wood) BHS	Tall	10	36.4	0.044	36.4	0.4 %	364 %
H39	Cowkins Coppice BHS and Cragg/Holme/Birks Wood (ID 1102542)	Tall	10	36.4	0.147	36.5	1.5 %	365 %
H40a	Hole House and Lower House Grasslands BHS	Short	10	24.6	0.086	24.7	0.9 %	247 %
H40b		Short	10	24.6	0.084	24.7	0.8 %	247 %
H40c		Short	10	24.6	0.073	24.7	0.7 %	247 %
H41a	Meadows Adjoining Far Holme Meadow SSSI BHS	Short	10	24.6	0.075	24.7	0.8 %	247 %
H41b		Short	10	24.6	0.072	24.7	0.7 %	247 %
H41c		Short	10	24.6	0.068	24.7	0.7 %	247 %

Location ID	Ecological site	Vegetation Type	Critical Load (CL) (kgN/ha/year)	Nitrogen Deposition (kgN/ha/year)				
				Existing Deposition	PC	PEC	PC/CL (%)	PEC/CL (%)
H42a	Well Beck Wood (Including Helks Home Wood and Middlefield Wood) BHS	Tall	10	31.8	0.047	31.8	0.5 %	318 %
H42b		Tall	10	31.8	0.039	31.8	0.4 %	318 %
H42c		Tall	10	31.8	0.035	31.8	0.3 %	318 %
H43	New Barn Meadow. Low Gill BHS	Short	20	25.8	0.050	25.8	0.3 %	129 %
H44	Foss Bank Wood, High Lot Wood, Over Wood and Mosit Shoe Wood BHS	Tall	10	36.8	0.074	36.9	0.7 %	369 %
H45	Bank Wood, High Lot Wood, Over Wood and Mosit Shoe Wood BHS	Tall	10	36.4	0.095	36.5	0.9 %	365 %
H46	Cragg Wood, Holme Wood, Birks Wood and Park House Wood BHS and Cragg/Holme/Birks Wood (ID 1102542)	Tall	10	36.4	0.137	36.5	1.4 %	365 %
H47a	Bowland Fells SPA and Bowland Fells SSSI	Short	10	21.4	0.01	21.4	0.1 %	214 %
H47b		Short	10	23.8	0.01	23.8	0.1 %	238 %
H47c		Short	10	23.8	0.02	23.8	0.2 %	238 %
H47d		Short	10	28.0	0.03	28.0	0.3 %	280 %
H47e		Short	10	25.1	0.03	25.1	0.3 %	251 %
H47f		Short	10	25.1	0.03	25.1	0.3 %	251 %
H47g		Short	10	25.1	0.04	25.1	0.4 %	251 %
H47h		Short	10	27.3	0.05	27.4	0.5 %	274 %
H47i		Short	10	27.3	0.07	27.4	0.7 %	274 %
H47j		Short	10	27.3	0.09	27.4	0.9 %	274 %
H47k		Short	10	27.7	0.12	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 NO₂, PM₁₀ and PM_{2.5} (µg/m³)

Location ID	X	Y	Location description	Property use	NO ₂				PM ₁₀				PM _{2.5}			
					Base 2019	DN 2023	DS 2023	DS - DN 2023	Base 2019	DN 2023	DS 2023	DS - DN 2023	Base 2019	DN 2023	DS 2023	DS - DN 2023
R2	363636	466185	High Park House Farm	Residential	4.8	4.2	4.3	0.0	8.0	7.6	7.6	0.0	5.5	5.1	5.1	0.0
R3	363772	465820	Lower House Farm	Residential	4.6	4.1	4.1	0.0	7.9	7.4	7.4	0.0	5.4	5.1	5.1	0.0
R8	369519	450406	Residential off Back Lane	Residential	4.6	4.1	4.1	0.0	8.2	7.7	7.7	0.0	5.6	5.2	5.2	0.0
R9	369680	450369	Hodder Croft	Residential	4.6	4.1	4.1	0.0	8.2	7.7	7.7	0.0	5.6	5.2	5.2	0.0
R10	369539	450358	Residential off Newton Rd	Residential	4.8	4.3	4.3	0.0	8.2	7.7	7.7	0.0	5.6	5.2	5.2	0.0
R11	370264	449753	Hill House Farm	Residential	5.6	5.0	5.2	0.1	8.2	7.7	7.8	0.1	5.6	5.2	5.3	0.1
R13	370397	449217	Slim Row Farm	Residential	5.6	5.0	5.1	0.1	8.2	7.7	7.8	0.1	5.6	5.2	5.3	0.1
R14	370540	448932	Wyndfell Farm	Residential	5.1	4.5	4.6	0.0	8.1	7.7	7.7	0.0	5.5	5.2	5.2	0.0
R19	368742	450133	Forber Farm	Residential	4.7	4.2	4.2	0.0	8.0	7.6	7.6	0.0	5.5	5.1	5.1	0.0
R21	370347	449588	Residential off Slaidburn Rd	Residential	5.4	4.8	4.9	0.1	8.1	7.7	7.7	0.0	5.6	5.2	5.2	0.0
RVBC_AQMA	374223	441303	A671 (Whalley Road), Clitheroe	Residential-1st floor	16.8	15.2	15.3	0.1	11.0	10.5	10.5	0.0	7.5	7.1	7.1	0.0

Table 14: Modelled air quality ecological location transect results for annual mean NO_x and NO₂ concentrations (µg/m³)

Location / Transect ID	Ecological site	X	Y	NO ₂				NO _x			
				Base 2019	DN 2023	DS 2023	DS - DN 2023	Base 2019	DN 2023	DS 2023	DS - DN 2023
H3	Cragg/Holme/Birks Woods Ancient Woodland (ID 1102542)	356552	496309	6.1	5.5	5.6	0.04	8.25	7.04	7.12	0.08
		356542	496312	5.9	5.3	5.3	0.03	7.8	6.7	6.7	0.06
		356532	496314	5.7	5.1	5.2	0.03	7.5	6.4	6.4	0.05
		356522	496316	5.6	5.0	5.0	0.02	7.2	6.2	6.2	0.03
		356513	496318	5.5	4.9	4.9	0.02	7.1	6.0	6.0	0.03
		356503	496321	5.4	4.8	4.8	0.01	6.9	5.9	5.9	0.02
		356493	496323	5.3	4.8	4.8	0.00	6.8	5.8	5.8	0.02
		356486	496329	5.3	4.7	4.7	0.01	6.7	5.7	5.7	0.01
		356482	496338	5.3	4.7	4.7	0.01	6.7	5.7	5.7	0.01
		356481	496348	5.2	4.7	4.7	0.00	6.7	5.7	5.7	0.01
		356481	496358	5.2	4.7	4.7	0.01	6.6	5.6	5.6	0.01
		356479	496367	5.2	4.7	4.7	0.01	6.6	5.6	5.6	0.01
		356477	496377	5.2	4.7	4.7	0.01	6.6	5.6	5.6	0.01
		356474	496387	5.2	4.6	4.6	0.01	6.5	5.6	5.6	0.01
		356470	496396	5.2	4.6	4.6	0.00	6.5	5.5	5.5	0.00
		356465	496405	5.1	4.6	4.6	0.00	6.5	5.5	5.5	0.00
		356460	496413	5.1	4.6	4.6	0.00	6.5	5.5	5.5	0.00
		356454	496421	5.1	4.6	4.6	0.00	6.5	5.5	5.5	0.00
356446	496427	5.1	4.6	4.6	0.00	6.5	5.5	5.5	0.00		

Location / Transect ID	Ecological site	X	Y	NO ₂				NO _x			
				Base 2019	DN 2023	DS 2023	DS - DN 2023	Base 2019	DN 2023	DS 2023	DS - DN 2023
		356437	496432	5.1	4.6	4.6	0.00	6.5	5.5	5.5	0.00
		356427	496434	5.1	4.6	4.6	0.00	6.4	5.5	5.5	0.00
H3	Cragg/Holme/Birks Woods Ancient Woodland (ID 1102542)	355101	495562	6.5	5.83	5.84	0.01	8.73	7.44	7.48	0.03
		355098	495572	6.3	5.64	5.66	0.02	8.37	7.13	7.16	0.03
		355095	495581	6.1	5.45	5.46	0.01	8.00	6.81	6.83	0.02
		355092	495591	5.9	5.31	5.32	0.01	7.74	6.59	6.60	0.02
		355088	495600	5.8	5.22	5.23	0.01	7.55	6.42	6.43	0.01
		355085	495609	5.8	5.15	5.15	0.00	7.40	6.29	6.30	0.01
		355082	495619	5.7	5.08	5.09	0.01	7.28	6.19	6.20	0.01
		355079	495628	5.6	5.04	5.04	0.00	7.19	6.11	6.12	0.01
		355076	495638	5.6	5.00	5.00	0.00	7.12	6.05	6.05	0.00
		355040	495742	5.4	4.86	4.86	0.00	6.85	5.82	5.82	0.00
355037	495751	5.4	4.86	4.86	0.00	6.85	5.82	5.82	0.00		

Receptor / Transect ID	Ecological site	X	Y	NO ₂				NO _x			
				Base 2019	DN 2023	DS 2023	DS - DN 2023	Base 2019	DN 2023	DS 2023	DS - DN 2023
H39	Cowkins Coppice BHS and Cragg/Holme/Birks Wood (ID 1102542)	355097	495574	6.2	5.58	5.60	0.02	8.24	7.02	7.05	0.03
		355094	495584	6.0	5.41	5.42	0.01	7.92	6.74	6.76	0.02

Receptor / Transect ID	Ecological site	X	Y	NO ₂				NO _x			
				Base 2019	DN 2023	DS 2023	DS - DN 2023	Base 2019	DN 2023	DS 2023	DS - DN 2023
		355091	495593	5.9	5.29	5.30	0.01	7.68	6.53	6.55	0.01
		355088	495603	5.8	5.19	5.20	0.01	7.50	6.38	6.39	0.01
		355084	495612	5.7	5.12	5.13	0.01	7.36	6.26	6.27	0.01
		355081	495621	5.7	5.07	5.08	0.01	7.25	6.16	6.17	0.01
		355078	495631	5.6	5.02	5.02	0.00	7.17	6.09	6.10	0.01
		355075	495640	5.6	4.99	5.00	0.01	7.10	6.03	6.04	0.00
		355055	495697	5.5	4.89	4.89	0.00	6.91	5.87	5.87	0.00
		355052	495707	5.5	4.89	4.89	0.00	6.91	5.86	5.86	0.00
		355049	495716	5.5	4.89	4.89	0.00	6.90	5.86	5.86	0.00
		355045	495726	5.5	4.89	4.89	0.00	6.90	5.86	5.86	0.00
		355042	495735	5.5	4.88	4.88	0.00	6.89	5.85	5.85	0.00
		355039	495744	5.5	4.88	4.88	0.00	6.88	5.84	5.84	0.00
		355036	495754	5.5	4.87	4.87	0.0	6.88	5.84	5.84	0.00
H46	Cragg Wood, Holme Wood, Birks Wood and Park House Wood BHS and Cragg/Holme/Birks Wood (ID 1102542)	354955	495552	6.7	6.0	6.0	0.0	9.0	7.66	7.69	0.03
		354956	495542	6.5	5.8	5.8	0.0	8.6	7.29	7.31	0.03
		354956	495532	6.3	5.6	5.6	0.0	8.2	7.00	7.02	0.02
		354956	495522	6.1	5.5	5.5	0.0	8.0	6.79	6.81	0.01
		354957	495512	6.0	5.4	5.4	0.0	7.8	6.64	6.65	0.01
		354957	495502	6.0	5.3	5.3	0.0	7.7	6.52	6.53	0.01
		354958	495492	5.9	5.3	5.3	0.0	7.6	6.43	6.43	0.01

Receptor / Transect ID	Ecological site	X	Y	NO ₂				NO _x			
				Base 2019	DN 2023	DS 2023	DS - DN 2023	Base 2019	DN 2023	DS 2023	DS - DN 2023
		354958	495482	5.9	5.2	5.2	0.0	7.5	6.35	6.36	0.01
		354958	495472	5.8	5.2	5.2	0.0	7.4	6.29	6.30	0.00
		354959	495462	5.8	5.2	5.2	0.0	7.4	6.25	6.25	0.00
		354959	495452	5.8	5.2	5.2	0.0	7.3	6.21	6.21	0.00
		354959	495442	5.7	5.1	5.1	0.0	7.3	6.18	6.18	0.00
		354960	495432	5.7	5.1	5.1	0.0	7.3	6.16	6.16	0.00
		354960	495422	5.7	5.1	5.1	0.0	7.2	6.14	6.14	0.00
		354960	495412	5.7	5.1	5.1	0.0	7.2	6.13	6.13	0.00
		354961	495402	5.7	5.1	5.1	0.0	7.2	6.13	6.13	0.00
		354961	495392	5.7	5.1	5.1	0.0	7.2	6.12	6.12	0.00
		354962	495382	5.7	5.1	5.1	0.0	7.2	6.12	6.12	0.00
		354962	495372	5.7	5.1	5.1	0.0	7.2	6.11	6.11	0.00
		354962	495362	5.7	5.1	5.1	0.0	7.2	6.10	6.11	0.00
		354962	495359	5.7	5.1	5.1	0.0	7.2	6.10	6.10	0.00
H28a	Waddington Fell Road, Roadside Verges BHS	370253	449760	5.7	5.1	5.2	0.1	7.7	6.5	6.8	0.2
H28b		370166	449916	5.7	5.1	5.2	0.1	7.7	6.5	6.8	0.2
H31	Gamble Hole Farm Pasture BHS	368855	450247	4.4	4.0	4.4	0.5	5.6	4.7	5.5	0.8
H36	Newton West Roadside Verges BHS	369057	450107	4.8	4.3	4.4	0.0	6.2	5.3	5.4	0.1
H38	Pike Gill Wood (Including Willock Close Wood and High Grasses Wood) BHS	362006	466294	4.7	4.2	4.2	0.0	5.9	5.0	5.0	0.0

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 (Nitrogen)	PEC	PC/CL (%)	PEC/CL (%)
H3	Haw Wood BHS and Cragg/Holme / Birks Woods Ancient Woodland (ID 1102542)	356552	496309	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		356542	496312	Tall	2.90	0.36	3.25	2.60	0.29	0.0004	2.89	0.0 %	89 %
		356532	496314	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		356522	496316	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		356513	496318	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		356503	496321	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		356493	496323	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		356486	496329	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		356482	496338	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		356481	496348	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		356481	496358	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		356479	496367	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		356477	496377	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		356474	496387	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		356470	496396	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		356465	496405	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
356460	496413	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %		
356454	496421	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %		

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 (Nitrogen)	PEC	PC/CL (%)	PEC/CL (%)
		356446	496427	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		356437	496432	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		356427	496434	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
H3	Haw Wood BHS and Cragg/Holme / Birks Woods Ancient Woodland (ID 1102542)	355101	495562	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355098	495572	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355095	495581	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355092	495591	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355088	495600	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355085	495609	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
H39	Cowkins Coppice BHS and Cragg/Holme /Birks Wood (ID 1102542)	355082	495619	Tall	2.90	0.36	3.25	2.60	0.29	0.0004	2.89	0.0 %	89 %
		355079	495628	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		355076	495638	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		355040	495742	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355037	495751	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		355097	495574	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355094	495584	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		355091	495593	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355088	495603	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		355084	495612	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %

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 (Nitrogen)	PEC	PC/CL (%)	PEC/CL (%)
		355081	495621	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355078	495631	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355075	495640	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355055	495697	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355052	495707	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355049	495716	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355045	495726	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355042	495735	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355039	495744	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		355036	495754	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
354955	495552	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %		
H46	Cragg Wood, Holme Wood, Birks Wood and Park House Wood BHS and Cragg/Holme/Birks Wood (ID 1102542)	354956	495542	Tall	2.90	0.36	3.25	2.60	0.29	0.0004	2.89	0.0 %	89 %
		354956	495532	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		354956	495522	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		354957	495512	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		354957	495502	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		354958	495492	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		354958	495482	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
354958	495472	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %		

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 (Nitrogen)	PEC	PC/CL (%)	PEC/CL (%)
		354959	495462	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		354959	495452	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %
		354959	495442	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		354960	495432	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		354960	495422	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		354960	495412	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		354961	495402	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		354961	495392	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		354962	495382	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		354962	495372	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		354962	495362	Tall	2.90	0.36	3.25	2.60	0.29	0.0000	2.89	0.0 %	89 %
		354962	495359	Tall	2.90	0.36	3.25	2.60	0.29	-0.0002	2.89	0.0 %	89 %
H28a	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 %
H28b	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 %

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 (Nitrogen)	PEC	PC/CL (%)	PEC/CL (%)
H31	Gamble Hole Farm Pasture BHS	368855	450247	Short	Not sensitive to acid deposition			1.85	0.37	0.0047	2.22	N/A	N/A
H36	Newton West Roadside Verges BHS	369057	450107	Short	4.00	1.07	5.07	1.85	0.37	0.0004	2.22	0.0 %	44 %
H38	Pike Gill Wood (Including Willock Close Wood and High Grasses Wood) BHS	362006	466294	Tall	2.90	0.36	3.25	2.60	0.29	0.0002	2.89	0.0 %	89 %

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 (%)
H3	Haw Wood BHS and Cragg/Holme/Birks Woods Ancient Woodland (ID 1102542)	356552	496309	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		356542	496312	Tall	10	36.40	0.006	36.41	0.060 %	364 %
		356532	496314	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		356522	496316	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		356513	496318	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		356503	496321	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		356493	496323	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		356486	496329	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		356482	496338	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		356481	496348	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		356481	496358	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		356479	496367	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		356477	496377	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		356474	496387	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		356470	496396	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		356465	496405	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		356460	496413	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		356454	496421	Tall	10	36.40	0.000	36.40	0.000 %	364 %
356446	496427	Tall	10	36.40	0.000	36.40	0.000 %	364 %		

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 (%)
		356437	496432	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		356427	496434	Tall	10	36.40	0.000	36.40	0.000 %	364 %
H3	Haw Wood BHS and Cragg/Holme/Birks Woods Ancient Woodland (ID 1102542)	355101	495562	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355098	495572	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355095	495581	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355092	495591	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355088	495600	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355085	495609	Tall	10	36.40	0.000	36.40	0.000 %	364 %
H39	Cowkins Coppice BHS and Cragg/Holme/Birks Wood (ID 1102542)	355082	495619	Tall	10	36.40	0.006	36.41	0.060 %	364 %
		355079	495628	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		355076	495638	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		355040	495742	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355037	495751	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		355097	495574	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355094	495584	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		355091	495593	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355088	495603	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		355084	495612	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355081	495621	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355078	495631	Tall	10	36.40	0.000	36.40	0.000 %	364 %

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 (%)
		355075	495640	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355055	495697	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355052	495707	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355049	495716	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355045	495726	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355042	495735	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355039	495744	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		355036	495754	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354955	495552	Tall	10	36.40	0.000	36.40	0.000 %	364 %
H46	Cragg Wood, Holme Wood, Birks Wood and Park House Wood BHS and Cragg/Holme/Birks Wood (ID 1102542)	354956	495542	Tall	10	36.40	0.006	36.41	0.060 %	364 %
		354956	495532	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		354956	495522	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		354957	495512	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354957	495502	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354958	495492	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354958	495482	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354958	495472	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354959	495462	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354959	495452	Tall	10	36.40	0.003	36.40	0.030 %	364 %
		354959	495442	Tall	10	36.40	0.000	36.40	0.000 %	364 %

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 (%)
		354960	495432	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354960	495422	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354960	495412	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354961	495402	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354961	495392	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354962	495382	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354962	495372	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354962	495362	Tall	10	36.40	0.000	36.40	0.000 %	364 %
		354962	495359	Tall	10	36.40	0.003	36.40	0.030 %	364 %
H28a	Waddington Fell Road, Roadside Verges BHS	370253	449760	Short	20	24.50	0.019	24.52	0.093 %	123 %
H28b	Waddington Fell Road, Roadside Verges BHS	370166	449916	Short	20	24.50	0.019	24.52	0.093 %	123 %
H31	Gamble Hole Farm Pasture BHS	368855	450247	Short	15	25.90	0.066	25.97	0.441 %	173 %
H36	Newton West Roadside Verges BHS	369057	450107	Short	20	25.90	0.006	25.91	0.030 %	130 %
H38	Pike Gill Wood (Including Willock Close Wood and High Grasses Wood) BHS	362006	466294	Tall	10	36.40	0.003	36.40	0.030 %	364 %

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

Location ID	Ecological Site	Pollutant	EQS (ug/m ³)	Background NO _x	Road PC (μg/m ³)	Road PEC (μg/m ³)	Road & Generator PC (μg/m ³)	Road & Generator PEC (μg/m ³)	Road PC / EQS (%)	Road PEC / EQS (%)	Road & Generator PC / EQS (%)	Road & Generator PEC / EQS (%)
H3	Cragg/Holme/Birks Woods Ancient Woodland (ID 1102542)	Oxides of nitrogen (Annual mean)	30	5.4	0.026	5.4	0.09	5.5	0.09 %	18.1 %	0.3 %	18.3 %
				4.8	0.001	4.8	0.07	4.9	0.00 %	16.0 %	0.2 %	16.2 %
H39	Cowkins Coppice BHS and Cragg/Holme/Birks Wood Ancient Woodland (ID 1102542)			5.4	0.029	5.5	0.09	5.5	0.10 %	18.2 %	0.3 %	18.4 %
H46	Cragg Wood, Holme Wood, Birks Wood and Park House Wood BHS and Cragg/Holme/Birks Wood Ancient Woodland (ID 1102542)			5.4	0.029	5.5	0.08	5.5	0.10 %	18.2 %	0.3 %	18.4 %
H28a	Waddington Fell Road, Roadside Verges BHS			6.5	0.227	6.8	0.49	7.0	0.76 %	22.6 %	1.6 %	23.5 %
H28b				6.5	0.227	6.8	0.51	7.1	0.76 %	22.6 %	1.7 %	23.5 %
H31	Gamble Hole Farm Pasture BHS			4.7	0.785	5.5	2.32	7.0	2.62 %	18.4 %	7.7 %	23.5 %
H36	Newton West Roadside Verges BHS			5.3	0.069	5.4	4.64	10.0	0.23 %	18.0 %	15.5 %	33.2 %
H38	Pike Gill Wood (Including Willock Close Wood and High Grasses Wood) BHS			5.0	0.001	5.0	0.02	5.0	0.00 %	16.7 %	0.1 %	16.8 %

4.1 Long Term Trend (LTTE6) Adjustment Calculations

Table 18: Long Term Trend Adjustment Calculations

Location	Base 2019 (ug/m ³)	Projected Base (ug/m ³)	Ratio A	Ratio B	Adjustment Factor (Ratio B / Ratio A)
R2	4.8	4.1	4.1	0.87	0.89
R3	4.6	4.0	4.0	0.87	0.89
R8	4.6	4.0	4.0	0.87	0.89
R9	4.6	4.0	4.0	0.87	0.89
R10	4.8	4.1	4.1	0.86	0.89
R11	5.6	4.7	4.8	0.83	0.89
R13	5.6	4.6	4.7	0.83	0.89
R14	5.1	4.3	4.4	0.85	0.89
R19	4.7	4.1	4.1	0.86	0.89
R21	5.4	4.5	4.6	0.84	0.89
AQMA	16.8	13.2	13.5	0.79	0.89