

## APPENDIX 12.7

## PREDICTED POLLUTANT CONCENTRATIONS

## Human Receptors

Table 12.7.1: Baseline Concentrations at Existing Receptors

Receptor	Annual Mean ( $\mu\text{g}/\text{m}^3$ )							
	2017 Baseline			2022 Without Development				
	NO <sub>2</sub>	PM <sub>10</sub> Annual Mean	Days >50 $\mu\text{g}/\text{m}^3$	PM <sub>2.5</sub>	NO <sub>2</sub>	PM <sub>10</sub> Annual Mean	Days >50 $\mu\text{g}/\text{m}^3$	PM <sub>2.5</sub>
R1	16.8	14.9	0	10.1	14.9	14.6	0	9.7
R2	21.9	17.5	1	11.4	19.5	17.5	1	11.1
R3	20.6	16.9	1	11.1	18.3	16.8	1	10.8
R4	27.2	19.8	3	12.6	23.9	19.9	3	12.3
R5	22.9	17.5	1	11.5	19.9	17.3	1	11.1
R6	27.1	19.7	3	12.6	23.5	19.8	3	12.3
R7	32.7	22.6	7	14.1	28.2	22.9	8	13.7
R8	22.7	17.8	1	11.6	19.8	17.7	1	11.3
R9	29.4	20.0	3	12.7	25.2	20.0	3	12.4
R10	22.4	17.8	1	11.6	19.5	17.7	1	11.2
R11	25.8	19.5	3	12.5	22.4	19.6	3	12.2
R12	27.5	20.1	4	12.7	23.7	20.2	4	12.4
R13	25.7	18.9	2	12.0	22.3	19.0	2	11.8
R14	26.6	19.3	3	12.3	23.2	19.5	3	12.0
R15	17.4	15.3	0	10.3	15.2	14.4	0	9.9
R16	22.8	17.1	1	11.4	19.8	16.8	1	11.1
R17	22.8	18.0	1	11.6	19.7	17.8	1	11.3

Receptor	Annual Mean ( $\mu\text{g}/\text{m}^3$ )							
	2017 Baseline				2022 Without Development			
	NO <sub>2</sub>	PM <sub>10</sub> Annual Mean	Days >50 $\mu\text{g}/\text{m}^3$	PM <sub>2.5</sub>	NO <sub>2</sub>	PM <sub>10</sub> Annual Mean	Days >50 $\mu\text{g}/\text{m}^3$	PM <sub>2.5</sub>
R18	36.5	22.9	8	14.3	31.4	23.0	8	13.9
R19	24.4	18.7	2	12.2	21.1	18.7	2	11.8
R20	35.0	23.8	10	14.7	30.3	24.2	11	14.4
R21	38.2	26.5	16	16.5	33.0	27.0	18	16.2
R22	27.7	21.3	5	14.0	24.0	21.4	5	13.6
R23	36.5	25.2	13	15.7	31.5	25.5	14	15.3
R24	28.6	22.6	7	15.0	24.7	22.6	7	14.6
R25	27.7	22.1	7	14.7	24.1	22.1	6	14.3
R26	21.6	19.4	3	13.4	18.7	19.1	2	13.0
R27	29.6	19.7	3	12.7	25.4	19.6	3	12.2
R28	30.0	20.6	4	13.1	25.6	20.7	4	12.7
R29	23.4	17.2	1	11.3	20.0	17.0	1	11.0
R30	23.1	16.9	1	11.2	19.8	16.7	1	10.8
R31	21.2	16.2	0	10.8	18.1	15.9	0	10.4
R32	27.4	18.4	2	11.8	23.0	18.3	2	11.6
R33	32.9	20.4	4	12.8	27.5	20.4	4	12.5
R34	27.4	18.4	2	11.8	23.0	18.3	2	11.5
R35	26.7	19.7	3	12.5	22.8	19.7	3	12.2
R36	34.7	23.4	9	14.3	29.4	23.8	10	14.1
R37	25.4	19.0	2	12.2	21.5	19.0	2	11.8

Receptor	NO <sub>2</sub>	Annual Mean ( $\mu\text{g}/\text{m}^3$ )						
		2017 Baseline			2022 Without Development			
		PM <sub>10</sub>		Days >50 $\mu\text{g}/\text{m}^3$	PM <sub>2.5</sub>	NO <sub>2</sub>	PM <sub>10</sub>	
Annual Mean	Days >50 $\mu\text{g}/\text{m}^3$	Annual Mean	Days >50 $\mu\text{g}/\text{m}^3$					
R38	33.2	22.0	6	13.7	26.7	22.1	7	13.3

Table 12.7.2: Future Concentrations at Existing Receptors

Receptor	Annual Mean ( $\mu\text{g}/\text{m}^3$ )							
	2022 Baseline			2022 With Development				
	NO <sub>2</sub>	PM <sub>10</sub> Annual Mean	Days >50 $\mu\text{g}/\text{m}^3$	PM <sub>2.5</sub>	NO <sub>2</sub>	PM <sub>10</sub> Annual Mean	Days >50 $\mu\text{g}/\text{m}^3$	PM <sub>2.5</sub>
R1	14.9	14.6	0	9.7	15.6	15.0	0	9.9
R2	19.5	17.5	1	11.1	21.1	18.4	2	11.5
R3	18.3	16.8	1	10.8	19.6	17.6	1	11.1
R4	23.9	19.9	3	12.3	25.7	21.0	5	12.8
R5	19.9	17.3	1	11.1	20.2	17.4	1	11.2
R6	23.5	19.8	3	12.3	23.9	20.0	3	12.4
R7	28.2	22.9	8	13.7	28.9	23.3	9	13.9
R8	19.8	17.7	1	11.3	20.0	17.8	1	11.3
R9	25.2	20.0	3	12.4	26.2	20.5	4	12.6
R10	19.5	17.7	1	11.2	19.7	17.8	1	11.3
R11	22.4	19.6	3	12.2	22.7	19.8	3	12.3
R12	23.7	20.2	4	12.4	25.6	21.3	5	12.9
R13	22.3	19.0	2	11.8	24.2	20.0	3	12.3
R14	23.2	19.5	3	12.0	24.0	19.9	3	12.2
R15	15.2	14.4	0	9.9	15.4	14.5	0	9.9
R16	19.8	16.8	1	11.1	20.2	17.0	1	11.2
R17	19.7	17.8	1	11.3	19.8	17.9	1	11.3
R18	31.4	23.0	8	13.9	31.6	23.2	8	13.9
R19	21.1	18.7	2	11.8	21.4	18.8	2	11.9
R20	30.3	24.2	11	14.4	30.8	24.5	11	14.6

Receptor	Annual Mean ( $\mu\text{g}/\text{m}^3$ )							
	2022 Baseline				2022 With Development			
	NO <sub>2</sub>	PM <sub>10</sub> Annual Mean	Days >50 $\mu\text{g}/\text{m}^3$	PM <sub>2.5</sub>	NO <sub>2</sub>	PM <sub>10</sub> Annual Mean	Days >50 $\mu\text{g}/\text{m}^3$	PM <sub>2.5</sub>
R21	33.0	27.0	18	16.2	33.6	27.4	19	16.4
R22	24.0	21.4	5	13.6	24.3	21.6	6	13.7
R23	31.5	25.5	14	15.3	32.1	25.8	14	15.5
R24	24.7	22.6	7	14.6	25.0	22.8	8	14.7
R25	24.1	22.1	6	14.3	24.3	22.2	7	14.4
R26	18.7	19.1	2	13.0	18.8	19.2	2	13.0
R27	25.4	19.6	3	12.2	25.8	19.8	3	12.3
R28	25.6	20.7	4	12.7	27.1	21.6	6	13.1
R29	20.0	17.0	1	11.0	20.9	17.5	1	11.2
R30	19.8	16.7	1	10.8	20.0	16.8	1	10.9
R31	18.1	15.9	0	10.4	18.3	16.0	0	10.4
R32	23.0	18.3	2	11.6	23.3	18.5	2	11.6
R33	27.5	20.4	4	12.5	27.9	20.6	4	12.6
R34	23.0	18.3	2	11.5	23.3	18.4	2	11.6
R35	22.8	19.7	3	12.2	23.1	19.9	3	12.3
R36	29.4	23.8	10	14.1	29.9	24.1	10	14.2
R37	21.5	19.0	2	11.8	21.6	19.1	2	11.9
R38	26.7	22.1	7	13.3	26.8	22.2	7	13.3

Table 12.7.3: Change in Concentrations Brought About by Development

Receptor	Annual Mean ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub>			PM <sub>10</sub>			PM <sub>2.5</sub>	
		AS % of AQAL	Significance of Impact	Annual Mean ( $\mu\text{g}/\text{m}^3$ )	AS % of AQAL	Significance of Impact	Annual Mean ( $\mu\text{g}/\text{m}^3$ )	AS % of AQAL	Significance of Impact
R1	0.6	2	Negligible	0.3	1	Negligible	0.2	0	Negligible
R2	1.6	4	Negligible	0.9	2	Negligible	0.4	1	Negligible
R3	1.3	3	Negligible	0.7	2	Negligible	0.3	1	Negligible
R4	1.8	4	Negligible	1.0	3	Negligible	0.5	2	Negligible
R5	0.2	0	Negligible	0.1	0	Negligible	0.1	0	Negligible
R6	0.4	1	Negligible	0.3	1	Negligible	0.1	0	Negligible
R7	0.6	2	Negligible	0.4	1	Negligible	0.2	0	Negligible
R8	0.1	0	Negligible	0.1	0	Negligible	0.0	0	Negligible
R9	1.0	2	Negligible	0.5	1	Negligible	0.2	0	Negligible
R10	0.2	0	Negligible	0.1	0	Negligible	0.1	0	Negligible
R11	0.4	1	Negligible	0.2	0	Negligible	0.1	0	Negligible
R12	1.9	5	Negligible	1.1	3	Negligible	0.5	2	Negligible
R13	1.9	5	Negligible	1.1	3	Negligible	0.5	2	Negligible
R14	0.8	2	Negligible	0.4	1	Negligible	0.2	0	Negligible
R15	0.2	0	Negligible	0.1	0	Negligible	0.0	0	Negligible
R16	0.4	1	Negligible	0.2	0	Negligible	0.1	0	Negligible
R17	0.1	0	Negligible	0.1	0	Negligible	0.0	0	Negligible
R18	0.2	0	Negligible	0.1	0	Negligible	0.1	0	Negligible
R19	0.2	0	Negligible	0.1	0	Negligible	0.1	0	Negligible
R20	0.5	1	Negligible	0.3	1	Negligible	0.1	0	Negligible
R21	0.6	1	Negligible	0.4	1	Negligible	0.2	0	Negligible

Receptor	NO <sub>2</sub>			PM <sub>10</sub>			PM <sub>2.5</sub>		
	Annual Mean (µg/m <sup>3</sup> )	AS % of AQAL	Significance of Impact	Annual Mean (µg/m <sup>3</sup> )	AS % of AQAL	Significance of Impact	Annual Mean (µg/m <sup>3</sup> )	AS % of AQAL	Significance of Impact
R22	0.3	1	Negligible	0.2	0	Negligible	0.1	0	Negligible
R23	0.5	1	Negligible	0.3	1	Negligible	0.2	0	Negligible
R24	0.3	1	Negligible	0.2	0	Negligible	0.1	0	Negligible
R25	0.2	0	Negligible	0.1	0	Negligible	0.0	0	Negligible
R26	0.1	0	Negligible	0.0	0	Negligible	0.0	0	Negligible
R27	0.4	1	Negligible	0.2	0	Negligible	0.1	0	Negligible
R28	1.5	4	Negligible	0.9	2	Negligible	0.4	1	Negligible
R29	1.0	2	Negligible	0.5	1	Negligible	0.2	0	Negligible
R30	0.2	0	Negligible	0.1	0	Negligible	0.1	0	Negligible
R31	0.2	0	Negligible	0.1	0	Negligible	0.0	0	Negligible
R32	0.3	1	Negligible	0.1	0	Negligible	0.1	0	Negligible
R33	0.4	1	Negligible	0.2	0	Negligible	0.1	0	Negligible
R34	0.3	1	Negligible	0.1	0	Negligible	0.1	0	Negligible
R35	0.3	1	Negligible	0.2	0	Negligible	0.1	0	Negligible
R36	0.5	1	Negligible	0.3	1	Negligible	0.1	0	Negligible
R37	0.1	0	Negligible	0.1	0	Negligible	0.0	0	Negligible
R38	0.1	0	Negligible	0.0	0	Negligible	0.0	0	Negligible

## Ecological Receptors

## Medway Estuary and Marshes SPA/RAMSAR

Table 12.7.4: Baseline Concentration and Deposition Rates at Ecological Receptors

Receptor	2017 Base			2022 Without Development		
	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	24-hour Mean (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	24-hour Mean (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)
E1	27.2	38.4	13.6	26.8	36.8	13.5
E2	27.0	38.4	13.6	26.6	36.8	13.5
E3	40.9	83.5	15.6	38.2	74.3	15.2
E3 +10 m	38.7	77.4	14.6	36.4	69.3	14.9
E3 +20m	37.2	73.3	14.4	35.1	65.8	14.8
E3 +30m	36.1	70.0	14.3	34.2	63.1	14.6
E3 +40m	35.2	67.2	14.2	33.4	60.7	14.5
E3 +50m	34.4	64.8	14.2	32.7	58.8	14.4
E3 +60 m	33.7	62.8	14.1	32.2	57.0	14.3
E3 +100m	31.7	56.8	13.9	30.5	52.0	14.1
E4	33.7	62.6	14.5	32.2	56.8	14.3
E4 +10 m	33.1	61.1	14.0	31.7	55.6	14.3
E4 +20m	32.5	59.5	13.9	31.2	54.3	14.2
E4 +30m	32.1	58.5	13.9	30.8	53.4	14.1
E4 +40m	31.6	57.4	13.9	30.4	52.5	14.1
E4 +50m	31.2	56.4	13.9	30.1	51.7	14.0
E4 +60 m	30.9	55.7	13.8	29.8	51.0	13.9
E4 +100m	29.9	53.0	13.7	29.0	48.8	13.9
E5	31.3	55.1	14.2	30.1	50.5	14.0



Table 12.7.5: Future Concentration and Deposition Rates at Ecological Receptors

Receptor	2022 Base			2022 With Development		
	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)
E1	26.8	36.8	13.5	27.0	37.8	13.6
E2	26.6	36.8	13.5	26.9	37.7	13.6
E3	38.2	74.3	15.2	38.9	76.3	15.3
E3 +10 m	36.4	69.3	14.9	37.0	71.1	15.0
E3 +20m	35.1	65.8	14.8	35.7	67.4	14.8
E3 +30m	34.2	63.1	14.6	34.7	64.6	14.7
E3 +40m	33.4	60.7	14.5	33.9	62.2	14.6
E3 +50m	32.7	58.8	14.4	33.2	60.1	14.5
E3 +60 m	32.2	57.0	14.3	32.6	58.3	14.4
E3 +100m	30.5	52.0	14.1	30.9	53.1	14.1
E4	32.2	56.8	14.3	32.6	58.2	14.4
E4 +10 m	31.7	55.6	14.3	32.0	56.8	14.3
E4 +20m	31.2	54.3	14.2	31.5	55.5	14.2
E4 +30m	30.8	53.4	14.1	31.1	54.6	14.2
E4 +40m	30.4	52.5	14.1	30.7	53.6	14.1
E4 +50m	30.1	51.7	14.0	30.4	52.8	14.1
E4 +60 m	29.8	51.0	13.9	30.1	52.1	14.0
E4 +100m	29.0	48.8	13.9	29.2	49.8	13.9
E5	30.1	50.5	14.0	30.4	51.5	14.1

Table 12.7.6: Change in Concentrations Brought About by Development

Receptor	Annual Mean NO <sub>x</sub>			24-hour NO <sub>x</sub>			N-Deposition		
	Annual Mean (µg/m <sup>3</sup> )	AS % of AQAL	Significance of Impact	Annual Mean (µg/m <sup>3</sup> )	AS % of AQAL	Significance of Impact	Deposition (kgN/ha/yr)	AS % of CL	Significance of Impact
E1	0.3	0.9	1% or less not significant	1.0	1.3	<10% not significant	0.04	0.2	1% or less not significant
E2	0.3	1.0	1% or less not significant	0.9	1.3	<10% not significant	0.04	0.2	1% or less not significant
E3	0.7	2.3	>1% further consideration	2.0	2.7	<10% not significant	0.10	0.5	1% or less not significant
E3 +10 m	0.6	2.0	>1% further consideration	1.8	2.4	<10% not significant	0.09	0.4	1% or less not significant
E3 +20m	0.5	1.8	>1% further consideration	1.7	2.2	<10% not significant	0.08	0.4	1% or less not significant
E3 +30m	0.5	1.7	>1% further consideration	1.6	2.1	<10% not significant	0.07	0.4	1% or less not significant
E3 +40m	0.5	1.5	>1% further consideration	1.5	1.9	<10% not significant	0.07	0.3	1% or less not significant
E3 +50m	0.4	1.4	>1% further consideration	1.4	1.8	<10% not significant	0.06	0.3	1% or less not significant
E3 +60 m	0.4	1.3	>1% further consideration	1.3	1.7	<10% not significant	0.06	0.3	1% or less not significant
E3 +100m	0.3	1.1	>1% further consideration	1.1	1.5	<10% not significant	0.05	0.2	1% or less not significant
E4	0.4	1.2	>1% further consideration	1.3	1.8	<10% not significant	0.05	0.3	1% or less not significant

Receptor	Annual Mean NO <sub>x</sub>			24-hour NO <sub>x</sub>			N-Deposition		
	Annual Mean (µg/m <sup>3</sup> )	AS % of AQAL	Significance of Impact	Annual Mean (µg/m <sup>3</sup> )	AS % of AQAL	Significance of Impact	Deposition (kgN/ha/yr)	AS % of CL	Significance of Impact
E4 +10 m	0.3	1.2	>1% further consideration	1.3	1.7	<10% not significant	0.05	0.3	1% or less not significant
E4 +20m	0.3	1.1	>1% further consideration	1.2	1.6	<10% not significant	0.05	0.2	1% or less not significant
E4 +30m	0.3	1.0	1% or less not significant	1.2	1.5	<10% not significant	0.04	0.2	1% or less not significant
E4 +40m	0.3	1.0	1% or less not significant	1.1	1.5	<10% not significant	0.04	0.2	1% or less not significant
E4 +50m	0.3	0.9	1% or less not significant	1.1	1.4	<10% not significant	0.04	0.2	1% or less not significant
E4 +60 m	0.3	0.9	1% or less not significant	1.1	1.4	<10% not significant	0.04	0.2	1% or less not significant
E4 +100m	0.2	0.7	1% or less not significant	0.9	1.3	<10% not significant	0.03	0.2	1% or less not significant
E5	0.3	0.9	1% or less not significant	1.0	1.3	<10% not significant	0.04	0.2	1% or less not significant

## Swale Estuary and Marshes SPA/RAMSAR

Table 12.7.7: Baseline Concentration and Deposition Rates at Ecological Receptors

Receptor	2017 Base			2022 Without Development		
	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)
L1a - 100m	17.2	45.5	14.9	15.9	37.2	14.7
L1b- 90m	17.7	48.3	14.9	16.3	39.2	14.8
L1c- 80m	18.4	51.8	15.1	16.8	41.7	14.8
L1d- 70m	19.2	56.0	15.2	17.4	44.8	14.9
L1e - 60m	20.2	61.4	15.3	18.1	48.6	15.0
L1f - 50m	21.6	68.4	15.5	19.1	53.8	15.2
L1g - 40m	23.6	78.3	15.8	20.6	61.0	15.4
L1h - 30m	26.6	93.0	16.3	22.8	71.7	15.7
L1i - 20m	31.8	117.4	17.0	26.6	89.3	16.3
L1j - 10m	42.8	166.4	18.6	34.5	124.5	17.4
L1k - 0m	70.6	211.9	22.6	54.7	157.1	20.3
L1l - 0m	79.9	190.5	23.9	61.5	140.0	21.3
L1m - 10m	55.5	135.7	20.4	43.8	102.6	18.7
L1n - 20m	40.2	95.0	18.2	32.7	73.2	17.1
L1o - 30m	32.9	75.1	17.2	27.4	58.8	16.4
L1p - 40m	28.7	63.3	16.6	24.3	50.2	15.9
L1q - 50m	25.9	55.5	16.2	22.3	44.5	15.6
L1r - 60m	23.9	50.1	15.9	20.8	40.5	15.4
L1s - 70m	22.5	46.1	15.7	19.7	37.5	15.3
L1t - 80m	21.3	42.9	15.5	18.9	35.2	15.2

Receptor	2017 Base			2022 Without Development		
	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> (µg/m <sup>3</sup> )	N- Deposition (kgN/ha/yr)
L1u - 90m	20.4	40.4	15.4	18.2	33.4	15.1
L1v- 100m	19.6	38.3	15.3	17.7	31.9	14.9
L2a - 100m	17.6	38.2	14.9	16.2	31.7	14.8
L2b- 90m	17.9	39.5	15.0	16.4	32.7	14.8
L2c- 80m	18.4	41.2	15.1	16.8	33.9	14.8
L2d- 70m	19.0	43.0	15.2	17.2	35.2	14.9
L2e - 60m	19.6	44.8	15.2	17.6	36.5	14.9
L2f - 50m	20.2	46.7	15.3	18.1	37.9	15.0
L2g - 40m	21.0	48.4	15.5	18.6	39.1	15.1
L2h - 30m	21.6	49.3	15.5	19.1	39.7	15.2
L2i - 20m	22.5	49.9	16.7	19.7	40.0	15.3
L2j - 10m	22.8	49.3	15.7	20.0	39.6	15.3
L2k - 0m	23.1	47.0	15.8	20.2	38	15.3
L2l - 0m	23.3	46.9	15.8	20.3	37.8	15.4
L2m - 10m	23.2	49.6	15.8	20.3	39.7	15.4
L2n - 20m	23.0	48.8	15.7	20.1	39.2	15.3
L2o - 30m	22.3	46.0	15.6	19.6	37.3	15.3
L2p - 40m	21.3	43.0	15.5	18.9	35.1	15.2
L2q - 50m	20.5	40.7	15.4	18.3	33.6	15.1
L2r - 60m	19.6	38.6	15.3	17.7	32.1	14.9
L2s - 70m	19.0	36.9	15.2	17.2	30.9	14.9
L2t - 80m	18.4	35.3	15.1	16.8	29.7	14.8

Receptor	2017 Base			2022 Without Development		
	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> (µg/m <sup>3</sup> )	N- Deposition (kgN/ha/yr)
L2u - 90m	17.8	33.6	14.9	16.4	28.4	14.8
L2w - 100m	21.8	32.6	15.9	16.1	27.7	14.7

Table 12.7.8: Future Concentration and Deposition Rates at Ecological Receptors

Receptor	2022 Base			2022 With Development		
	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> (µg/m <sup>3</sup> )	N- Deposition (kgN/ha/yr)
L1a - 100m	15.9	37.2	14.7	15.9	37.2	14.7
L1b- 90m	16.3	39.2	14.8	16.3	39.2	14.8
L1c- 80m	16.8	41.7	14.8	16.8	41.7	14.8
L1d- 70m	17.4	44.8	14.9	17.4	44.8	14.9
L1e - 60m	18.1	48.6	15.0	18.1	48.6	15.0
L1f - 50m	19.1	53.8	15.2	19.1	53.8	15.2
L1g - 40m	20.6	61.0	15.4	20.6	61.0	15.4
L1h - 30m	22.8	71.7	15.7	22.8	71.7	15.7
L1i - 20m	26.6	89.3	16.3	26.6	89.3	16.3
L1j - 10m	34.5	124.5	17.4	34.5	124.5	17.4
L1k - 0m	54.7	157.1	20.3	54.7	157.1	20.3
L1l - 0m	61.5	140.0	21.3	61.5	140.0	21.3
L1m - 10m	43.8	102.6	18.7	43.8	102.6	18.7
L1n - 20m	32.7	73.2	17.1	32.7	73.2	17.1

Receptor	2022 Base			2022 With Development		
	Annual Mean NO <sub>x</sub> <sup>3</sup> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> <sup>3</sup> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Annual Mean NO <sub>x</sub> <sup>3</sup> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> <sup>3</sup> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)
L1o - 30m	27.4	58.8	16.4	27.4	58.8	16.4
L1p - 40m	24.3	50.2	15.9	24.3	50.2	15.9
L1q - 50m	22.3	44.5	15.6	22.3	44.5	15.6
L1r - 60m	20.8	40.5	15.4	20.8	40.5	15.4
L1s - 70m	19.7	37.5	15.3	19.7	37.5	15.3
L1t - 80m	18.9	35.2	15.2	18.9	35.2	15.2
L1u - 90m	18.2	33.4	15.1	18.2	33.4	15.1
L1v- 100m	17.7	31.9	14.9	17.7	31.9	14.9
L2a - 100m	16.2	31.7	14.8	16.2	31.7	14.8
L2b- 90m	16.4	32.7	14.8	16.4	32.7	14.8
L2c- 80m	16.8	33.9	14.8	16.8	33.9	14.8
L2d- 70m	17.2	35.2	14.9	17.2	35.2	14.9
L2e - 60m	17.6	36.5	14.9	17.6	36.5	14.9
L2f - 50m	18.1	37.9	15.0	18.1	37.9	15.0
L2g - 40m	18.6	39.1	15.1	18.6	39.1	15.1
L2h - 30m	19.1	39.7	15.2	19.1	39.7	15.2
L2i - 20m	19.7	40.0	15.3	19.7	40.0	15.3
L2j - 10m	20.0	39.6	15.3	20.0	39.6	15.3
L2k - 0m	20.2	38	15.3	20.2	38	15.3
L2l - 0m	20.3	37.8	15.4	20.3	37.8	15.4
L2m - 10m	20.3	39.7	15.4	20.3	39.7	15.4

Receptor	2022 Base			2022 With Development		
	Annual Mean NO <sub>x</sub> <sup>3</sup> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> <sup>3</sup> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Annual Mean NO <sub>x</sub> <sup>3</sup> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> <sup>3</sup> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)
L2n - 20m	20.1	39.2	15.3	20.1	39.2	15.3
L2o - 30m	19.6	37.3	15.3	19.6	37.3	15.3
L2p - 40m	18.9	35.1	15.2	18.9	35.1	15.2
L2q - 50m	18.3	33.6	15.1	18.3	33.6	15.1
L2r - 60m	17.7	32.1	14.9	17.7	32.1	14.9
L2s - 70m	17.2	30.9	14.9	17.2	30.9	14.9
L2t - 80m	16.8	29.7	14.8	16.8	29.7	14.8
L2u - 90m	16.4	28.4	14.8	16.4	28.4	14.8
L2w - 100m	16.1	27.7	14.7	16.1	27.7	14.7



Table 12.7.9: Change in Concentrations Brought About by Development

Receptor	Annual Mean NO <sub>x</sub>			24-hour Mean NO <sub>x</sub>			N-Deposition		
	Annual Mean (µg/m <sup>3</sup> )	AS % of AQAL	Significance of Impact	Annual Mean (µg/m <sup>3</sup> )	AS % of AQAL	Significance of Impact	Deposition (kgN/ha/yr)	AS % of CL	Significance of Impact
L1a - 100m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1b- 90m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1c- 80m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1d- 70m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1e - 60m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1f - 50m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1g - 40m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1h - 30m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1i - 20m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1j - 10m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1k - 0m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1l - 0m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1m - 10m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1n - 20m	0	0	Not significant	0	0	Not significant	0	0	Not significant

Receptor	Annual Mean NO <sub>x</sub>			24-hour Mean NO <sub>x</sub>			N-Deposition		
	Annual Mean (µg/m <sup>3</sup> )	AS % of AQAL	Significance of Impact	Annual Mean (µg/m <sup>3</sup> )	AS % of AQAL	Significance of Impact	Deposition (kgN/ha/yr)	AS % of CL	Significance of Impact
L1o - 30m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1p - 40m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1q - 50m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1r - 60m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1s - 70m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1t - 80m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1u - 90m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L1v - 100m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2a - 100m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2b - 90m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2c - 80m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2d - 70m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2e - 60m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2f - 50m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2g - 40m	0	0	Not significant	0	0	Not significant	0	0	Not significant

Receptor	Annual Mean NO <sub>x</sub>			24-hour Mean NO <sub>x</sub>			N-Deposition		
	Annual Mean (µg/m <sup>3</sup> )	AS % of AQAL	Significance of Impact	Annual Mean (µg/m <sup>3</sup> )	AS % of AQAL	Significance of Impact	Deposition (kgN/ha/yr)	AS % of CL	Significance of Impact
L2h - 30m	0	0		0	0		0	0	
L2i - 20m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2j - 10m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2k - 0m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2l - 0m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2m - 10m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2n - 20m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2o - 30m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2p - 40m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2q - 50m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2r - 60m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2s - 70m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2t - 80m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2u - 90m	0	0	Not significant	0	0	Not significant	0	0	Not significant
L2w - 100m	0	0	Not significant	0	0	Not significant	0	0	Not significant

## North Downs SAC

Table 12.7.10: Baseline Concentration and Deposition Rates at Ecological Receptors

Receptor	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	2017 Base			2022 Without Development			
		24-hour NO <sub>x</sub> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Acid (N) Deposition (keq/ha/yr)	Annual Mean NO <sub>x</sub> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Acid (N) Deposition (keq/ha/yr)
L3a - 0m	55.4	142.5	36.8	2.63	46.8	114.9	32.0	2.45
L3b - 10m	44.9	111.6	33.8	2.41	38.7	91.0	30.7	2.29
L3c - 20m	39.1	93.7	32.1	2.29	34.2	77.1	39.8	2.19
L3d - 30m	35.3	82.0	31.0	2.22	31.3	68.1	29.3	2.14
L3e - 40m	32.7	73.7	30.3	2.16	29.2	61.7	28.9	2.09
L3f - 50m	30.7	67.4	29.7	2.12	27.7	56.9	28.5	2.06
L3g - 60m	29.2	62.6	29.3	2.09	26.5	53.1	28.2	2.04
L3h - 70m	27.9	58.7	28.9	2.07	25.6	50.1	28.0	2.02
L3i - 80m	26.9	55.5	28.6	2.04	24.8	47.6	27.8	2.00
L3j - 90m	26.1	52.9	28.4	2.03	24.2	45.6	27.5	1.98
L4a - 0m	24.1	45.0	27.8	1.98	22.9	40.5	27.4	1.96
L4b - 10m	23.8	43.9	27.7	1.98	22.6	39.6	27.3	1.96
L4c - 20m	23.5	42.9	27.6	1.97	22.3	38.8	27.2	1.95
L4d - 30m	23.2	41.9	27.5	1.97	22.1	38.0	27.2	1.94
L4e - 40m	22.9	41.0	27.5	1.96	21.9	37.3	27.1	1.94
L4f - 50m	22.7	40.3	27.4	1.96	21.7	36.7	27.1	1.93
L4g - 60m	22.5	39.6	27.4	1.95	21.6	36.1	27.0	1.93
L4h - 70m	22.3	38.7	27.3	1.95	21.4	35.4	26.9	1.93
L4i - 80m	22.0	37.9	27.2	1.94	21.2	34.7	26.9	1.92
L4j - 90m	21.8	37.1	27.2	1.94	21.0	34.1	26.9	1.92

Table 12.7.11: Future Concentration and Deposition Rates at Ecological Receptors

Receptor	Annual Mean NO <sub>x</sub> <sup>3</sup> (µg/m <sup>3</sup> )	2022 Base			2022 With Development			
		24-hour NO <sub>x</sub> <sup>3</sup> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Acid (N) Deposition (keq/ha/yr)	Annual Mean NO <sub>x</sub> <sup>3</sup> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> <sup>3</sup> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Acid (N) Deposition (keq/ha/yr)
L3a - 0m	46.8	114.9	32.0	2.45	46.8	114.9	32.0	2.45
L3b - 10m	38.7	91.0	30.7	2.29	38.7	91.0	30.7	2.29
L3c - 20m	34.2	77.1	39.8	2.19	34.2	77.1	39.8	2.19
L3d - 30m	31.3	68.1	29.3	2.14	31.3	68.1	29.3	2.14
L3e - 40m	29.2	61.7	28.9	2.09	29.2	61.7	28.9	2.09
L3f - 50m	27.7	56.9	28.5	2.06	27.7	56.9	28.5	2.06
L3g - 60m	26.5	53.1	28.2	2.04	26.5	53.1	28.2	2.04
L3h - 70m	25.6	50.1	28.0	2.02	25.6	50.1	28.0	2.02
L3i - 80m	24.8	47.6	27.8	2.00	24.8	47.6	27.8	2.00
L3j - 90m	24.2	45.6	27.5	1.98	24.2	45.6	27.5	1.98
L4a - 0m	22.9	40.5	27.4	1.96	22.9	40.5	27.4	1.96
L4b - 10m	22.6	39.6	27.3	1.96	22.6	39.6	27.3	1.96
L4c - 20m	22.3	38.8	27.2	1.95	22.3	38.8	27.2	1.95
L4d - 30m	22.1	38.0	27.2	1.94	22.1	38.0	27.2	1.94

Receptor	2022 Base				2022 With Development			
	Annual Mean NO <sub>x</sub> <sub>3</sub> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> <sub>3</sub> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Acid (N) Deposition (keq/ha/yr)	Annual Mean NO <sub>x</sub> <sub>3</sub> (µg/m <sup>3</sup> )	24-hour NO <sub>x</sub> <sub>3</sub> (µg/m <sup>3</sup> )	N-Deposition (kgN/ha/yr)	Acid (N) Deposition (keq/ha/yr)
L4e - 40m	21.9	37.3	27.1	1.94	21.9	37.3	27.1	1.94
L4f - 50m	21.7	36.7	27.1	1.93	21.7	36.7	27.1	1.93
L4g - 60m	21.6	36.1	27.0	1.93	21.6	36.1	27.0	1.93
L4h - 70m	21.4	35.4	26.9	1.93	21.4	35.4	26.9	1.93
L4i - 80m	21.2	34.7	26.9	1.92	21.2	34.7	26.9	1.92
L4j - 90m	21.0	34.1	26.9	1.92	21.0	34.1	26.9	1.92

Table 12.7.12: Change in Concentrations Brought About by Development

Receptor	Annual Mean NO <sub>x</sub>		24-hour mean NO <sub>x</sub>		N-Deposition		Acid (N) Deposition	
	AS % of AQAL	Significance of Impact	AS % of AQAL	Significance of Impact	AS % of CL	Significance of Impact	AS % of CL	Significance of Impact
L3a - 0m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L3b - 10m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L3c - 20m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L3d - 30m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L3e - 40m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L3f - 50m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L3g - 60m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L3h - 70m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L3i - 80m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L3j - 90m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L4a - 0m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L4b - 10m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L4c - 20m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L4d - 30m	0	Not significant Not significant	0	Not significant Not significant	0	Not significant Not significant	0	Not significant Not significant

Receptor	Annual Mean NO <sub>x</sub>		24-hour mean NO <sub>x</sub>		N-Deposition		Acid (N) Deposition	
	AS % of AQAL	Significance of Impact	AS % of AQAL	Significance of Impact	AS % of CL	Significance of Impact	AS % of CL	Significance of Impact
L4e - 40m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L4f - 50m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L4g - 60m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L4h - 70m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L4i - 80m	0	Not significant	0	Not significant	0	Not significant	0	Not significant
L4j - 90m	0	Not significant	0	Not significant	0	Not significant	0	Not significant