

## APPENDIX 6.4: OPERATIONAL PHASE ASSESSMENT RESULTS

### Predicted NO<sub>2</sub>, CO, NMP and Ethyl Carbonate Concentrations for Existing Sensitive Human Receptors

#### *Predicted NO<sub>2</sub> Concentrations*

1.1 The predicted NO<sub>2</sub> concentrations for the existing sensitive receptors and points across the receptor grid, for each year of meteorological data, are shown in Figures 6.4/1 to 6.4/5, below. The highest results for the receptors considered are highlighted in red.

**Figure 6.4/1: 2018 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM 99.79th PERCENTILE					LONG TERM				
				PC 99.79th %ile	PC	PEC	PC/AQO	PEC/AQO	PC	PC	PEC	PC/AQO	PEC/AQO
				NO <sub>x</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>x</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL
		X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	25.44	12.72	34.43	6.36	17.21	0.58	0.58	11.43	1.45	28.59
ESR 2	Property along Downhill Lane	433325.17	559682.26	23.10	11.55	33.26	5.77	16.63	0.49	0.49	11.35	1.24	28.37
ESR 3	Property off Washington Road	433964.30	559014.14	19.33	9.67	31.37	4.83	15.69	0.61	0.61	11.46	1.53	28.66
ESR 4	Property along Boston Crescent	434421.17	559599.51	11.45	5.72	34.40	2.86	17.20	0.24	0.24	14.58	0.60	36.45
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	11.58	5.79	34.46	2.89	17.23	0.30	0.30	14.64	0.76	36.60
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	9.97	4.99	49.64	2.49	24.82	0.27	0.27	22.59	0.67	56.49
ESR 7	Property at Seven Houses	432334.01	557786.97	10.08	5.04	31.12	2.52	15.56	0.09	0.09	13.13	0.23	32.82
ESR 8	Property along Sulgrave Road	431863.91	558150.44	9.69	4.85	30.78	2.42	15.39	0.10	0.10	13.07	0.25	32.67
ESR 9	Property along Watcombe Close	431633.25	558996.97	9.10	4.55	30.49	2.28	15.24	0.08	0.08	13.05	0.20	32.62
ESR 10	East House Farm	431811.19	559417.59	11.32	5.66	26.88	2.83	13.44	0.12	0.12	10.73	0.29	26.82
ESR 11	Property along Follingsby Lane	432337.30	559964.76	13.53	6.77	27.02	3.38	13.51	0.15	0.15	10.28	0.38	25.70



Figure 6.4/2: 2019 Meteorological Data

RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM 99.79th PERCENTILE					LONG TERM				
				PC 99.79th %ile	PC	PEC	PC/AQO	PEC/AQO	PC	PC	PEC	PC/AQO	PEC/AQO
				NO <sub>x</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>x</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL
X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%		
ESR 1	Hylton Bridge Farm	433347.47	559511.37	29.61	14.81	36.51	7.40	18.26	0.68	0.68	11.53	1.70	28.83
ESR 2	Property along Downhill Lane	433325.17	559682.26	28.16	14.08	35.79	7.04	17.89	0.57	0.57	11.43	1.43	28.57
ESR 3	Property off Washington Road	433964.30	559014.14	20.21	10.11	31.81	5.05	15.91	0.66	0.66	11.51	1.64	28.77
ESR 4	Property along Boston Crescent	434421.17	559599.51	13.33	6.66	35.34	3.33	17.67	0.31	0.31	14.64	0.77	36.61
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	12.58	6.29	34.96	3.14	17.48	0.33	0.33	14.66	0.82	36.66
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	9.99	4.99	49.65	2.50	24.83	0.27	0.27	22.59	0.66	56.48
ESR 7	Property at Seven Houses	432334.01	557786.97	7.92	3.96	30.04	1.98	15.02	0.08	0.08	13.12	0.19	32.79
ESR 8	Property along Sulgrave Road	431863.91	558150.44	7.35	3.68	29.61	1.84	14.81	0.07	0.07	13.04	0.18	32.60
ESR 9	Property along Watcombe Close	431633.25	558996.97	4.82	2.41	28.35	1.20	14.17	0.06	0.06	13.03	0.16	32.58
ESR 10	East House Farm	431811.19	559417.59	7.77	3.88	25.11	1.94	12.55	0.09	0.09	10.70	0.23	26.76
ESR 11	Property along Follingsby Lane	432337.30	559964.76	13.48	6.74	26.99	3.37	13.50	0.16	0.16	10.28	0.39	25.71

Figure 6.4/3: 2020 Meteorological Data

RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM 99.79th PERCENTILE					LONG TERM				
				PC 99.79th %ile	PC	PEC	PC/AQO	PEC/AQO	PC	PC	PEC	PC/AQO	PEC/AQO
				NO <sub>x</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>x</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL
X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%		
ESR 1	Hylton Bridge Farm	433347.47	559511.37	28.00	14.00	35.71	7.00	17.85	0.62	0.62	11.48	1.56	28.69
ESR 2	Property along Downhill Lane	433325.17	559682.26	24.66	12.33	34.04	6.16	17.02	0.52	0.52	11.37	1.30	28.43
ESR 3	Property off Washington Road	433964.30	559014.14	18.35	9.17	30.88	4.59	15.44	0.64	0.64	11.49	1.60	28.74
ESR 4	Property along Boston Crescent	434421.17	559599.51	11.68	5.84	34.51	2.92	17.26	0.25	0.25	14.58	0.61	36.46
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	10.94	5.47	34.15	2.74	17.07	0.33	0.33	14.66	0.82	36.66
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	8.91	4.46	49.11	2.23	24.56	0.28	0.28	22.60	0.69	56.51
ESR 7	Property at Seven Houses	432334.01	557786.97	9.90	4.95	31.03	2.47	15.51	0.09	0.09	13.13	0.23	32.83
ESR 8	Property along Sulgrave Road	431863.91	558150.44	9.26	4.63	30.57	2.32	15.28	0.10	0.10	13.06	0.24	32.66
ESR 9	Property along Watcombe Close	431633.25	558996.97	5.13	2.57	28.50	1.28	14.25	0.05	0.05	13.02	0.13	32.55
ESR 10	East House Farm	431811.19	559417.59	7.55	3.77	25.00	1.89	12.50	0.07	0.07	10.68	0.16	26.69
ESR 11	Property along Follingsby Lane	432337.30	559964.76	10.43	5.21	25.47	2.61	12.73	0.12	0.12	10.25	0.30	25.61

Figure 6.4/4: 2021 Meteorological Data

RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM 99.79th PERCENTILE					LONG TERM				
				PC 99.79th %ile	PC	PEC	PC/AQO	PEC/AQO	PC	PC	PEC	PC/AQO	PEC/AQO
				NO <sub>x</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>x</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL
X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%		
ESR 1	Hylton Bridge Farm	433347.47	559511.37	27.52	13.76	35.47	6.88	17.73	0.58	0.58	11.44	1.46	28.59
ESR 2	Property along Downhill Lane	433325.17	559682.26	23.18	11.59	33.30	5.79	16.65	0.48	0.48	11.33	1.19	28.33
ESR 3	Property off Washington Road	433964.30	559014.14	20.36	10.18	31.89	5.09	15.94	0.65	0.65	11.51	1.64	28.77
ESR 4	Property along Boston Crescent	434421.17	559599.51	13.79	6.90	35.57	3.45	17.79	0.31	0.31	14.64	0.77	36.61
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	13.33	6.67	35.34	3.33	17.67	0.33	0.33	14.67	0.83	36.67
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	10.70	5.35	50.01	2.68	25.00	0.29	0.29	22.62	0.73	56.55
ESR 7	Property at Seven Houses	432334.01	557786.97	12.59	6.30	32.38	3.15	16.19	0.12	0.12	13.16	0.30	32.89
ESR 8	Property along Sulgrave Road	431863.91	558150.44	10.66	5.33	31.26	2.66	15.63	0.11	0.11	13.08	0.27	32.69
ESR 9	Property along Watcombe Close	431633.25	558996.97	8.86	4.43	30.37	2.22	15.18	0.09	0.09	13.06	0.23	32.65
ESR 10	East House Farm	431811.19	559417.59	11.34	5.67	26.89	2.83	13.45	0.10	0.10	10.72	0.26	26.79
ESR 11	Property along Follingsby Lane	432337.30	559964.76	9.33	4.67	24.92	2.33	12.46	0.10	0.10	10.23	0.25	25.57

Figure 6.4/5: 2022 Meteorological Data

RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM 99.79th PERCENTILE					LONG TERM				
				PC 99.79th %ile	PC	PEC	PC/AQO	PEC/AQO	PC	PC	PEC	PC/AQO	PEC/AQO
				NO <sub>x</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>x</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL
X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%		
ESR 1	Hylton Bridge Farm	433347.47	559511.37	25.17	12.58	34.29	6.29	17.15	0.62	0.62	11.47	1.54	28.67
ESR 2	Property along Downhill Lane	433325.17	559682.26	23.06	11.53	33.24	5.77	16.62	0.51	0.51	11.37	1.28	28.42
ESR 3	Property off Washington Road	433964.30	559014.14	19.87	9.93	31.64	4.97	15.82	0.67	0.67	11.52	1.67	28.81
ESR 4	Property along Boston Crescent	434421.17	559599.51	11.80	5.90	34.57	2.95	17.29	0.29	0.29	14.62	0.72	36.56
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	12.83	6.41	35.09	3.21	17.54	0.34	0.34	14.67	0.84	36.68
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	10.91	5.45	<b>50.11</b>	2.73	<b>25.05</b>	0.29	0.29	<b>22.62</b>	0.74	<b>56.56</b>
ESR 7	Property at Seven Houses	432334.01	557786.97	7.71	3.85	29.93	1.93	14.97	0.09	0.09	13.12	0.21	32.81
ESR 8	Property along Sulgrave Road	431863.91	558150.44	8.22	4.11	30.05	2.06	15.02	0.07	0.07	13.04	0.19	32.61
ESR 9	Property along Watcombe Close	431633.25	558996.97	4.51	2.25	28.19	1.13	14.10	0.05	0.05	13.02	0.12	32.54
ESR 10	East House Farm	431811.19	559417.59	6.57	3.28	24.51	1.64	12.25	0.07	0.07	10.68	0.17	26.70
ESR 11	Property along Follingsby Lane	432337.30	559964.76	10.51	5.25	25.51	2.63	12.75	0.13	0.13	10.25	0.32	25.64

## Predicted CO Concentrations

1.2 The predicted CO concentrations for the existing sensitive receptors and points across the receptor grid, for each year of meteorological data, are shown in Figures 6.4/6 to 6.4/10, below. The highest results for the receptors considered are highlighted in red.

**Figure 6.4/6: 2018 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM				
				PC	PC	PEC	PC/AQO	PEC/AQO
				8 HOUR	8 HOUR	8 HOUR	8 HOUR	8 HOUR
		X	Y	µg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	2.93	0.0029	0.19	0.03	1.89
ESR 2	Property along Downhill Lane	433325.17	559682.26	2.91	0.0029	0.19	0.03	1.89
ESR 3	Property off Washington Road	433964.30	559014.14	1.24	0.0012	0.19	0.01	1.87
ESR 4	Property along Boston Crescent	434421.17	559599.51	1.10	0.0011	0.18	0.01	1.83
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.75	0.0007	0.18	0.01	1.83
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	1.35	0.0014	0.19	0.01	1.85
ESR 7	Property at Seven Houses	432334.01	557786.97	1.12	0.0011	0.19	0.01	1.90
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.93	0.0009	0.19	0.01	1.87
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.74	0.0007	0.19	0.01	1.87
ESR 10	East House Farm	431811.19	559417.59	0.97	0.0010	0.18	0.01	1.85
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.86	0.0009	0.19	0.01	1.86

**Figure 6.4/7: 2019 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM				
				PC	PC	PEC	PC/AQO	PEC/AQO
				8 HOUR	8 HOUR	8 HOUR	8 HOUR	8 HOUR
		X	Y	µg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	2.53	0.0025	0.19	0.03	1.88
ESR 2	Property along Downhill Lane	433325.17	559682.26	2.63	0.0026	0.19	0.03	1.88
ESR 3	Property off Washington Road	433964.30	559014.14	2.43	0.0024	0.19	0.02	1.88
ESR 4	Property along Boston Crescent	434421.17	559599.51	1.26	0.0013	0.18	0.01	1.83
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	1.45	0.0014	0.18	0.01	1.84
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	1.08	0.0011	0.19	0.01	1.85
ESR 7	Property at Seven Houses	432334.01	557786.97	0.79	0.0008	0.19	0.01	1.89
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.56	0.0006	0.19	0.01	1.86
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.60	0.0006	0.19	0.01	1.86
ESR 10	East House Farm	431811.19	559417.59	0.54	0.0005	0.18	0.01	1.85
ESR 11	Property along Follingsby Lane	432337.30	559964.76	1.44	0.0014	0.19	0.01	1.86

**Figure 6.4/8: 2020 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM				
				PC	PC	PEC	PC/AQO	PEC/AQO
				8 HOUR	8 HOUR	8 HOUR	8 HOUR	8 HOUR
		X	Y	µg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	3.15	<b>0.0031</b>	0.1890	<b>0.0315</b>	1.8896
ESR 2	Property along Downhill Lane	433325.17	559682.26	2.29	0.0023	0.1881	0.0229	1.8810
ESR 3	Property off Washington Road	433964.30	559014.14	1.78	0.0018	0.1876	0.0178	1.8759
ESR 4	Property along Boston Crescent	434421.17	559599.51	1.17	0.0012	0.1834	0.0117	1.8337
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.93	0.0009	0.1831	0.0093	1.8313
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.76	0.0008	0.1848	0.0076	1.8477
ESR 7	Property at Seven Houses	432334.01	557786.97	1.36	0.0014	0.1899	0.0136	1.8988
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.76	0.0008	0.1866	0.0076	1.8657
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.59	0.0006	0.1864	0.0059	1.8641
ESR 10	East House Farm	431811.19	559417.59	0.69	0.0007	0.1847	0.0069	1.8470
ESR 11	Property along Follingsby Lane	432337.30	559964.76	1.04	0.0010	0.1859	0.0104	1.8595

**Figure 6.4/9: 2021 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM				
				PC	PC	PEC	PC/AQO	PEC/AQO
				8 HOUR	8 HOUR	8 HOUR	8 HOUR	8 HOUR
		X	Y	$\mu\text{g}/\text{m}^3$	$\text{mg}/\text{m}^3$	$\text{mg}/\text{m}^3$	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	2.73	0.0027	0.1885	0.0273	1.8854
ESR 2	Property along Downhill Lane	433325.17	559682.26	2.17	0.0022	0.1880	0.0217	1.8798
ESR 3	Property off Washington Road	433964.30	559014.14	2.11	0.0021	0.1879	0.0211	1.8792
ESR 4	Property along Boston Crescent	434421.17	559599.51	1.43	0.0014	0.1836	0.0143	1.8364
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	1.11	0.0011	0.1833	0.0111	1.8331
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.79	0.0008	0.1848	0.0079	1.8480
ESR 7	Property at Seven Houses	432334.01	557786.97	1.45	0.0015	<b>0.1900</b>	0.0145	<b>1.8997</b>
ESR 8	Property along Sulgrave Road	431863.91	558150.44	1.00	0.0010	0.1868	0.0100	1.8681
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.83	0.0008	0.1866	0.0083	1.8665
ESR 10	East House Farm	431811.19	559417.59	1.22	0.0012	0.1852	0.0122	1.8522
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.70	0.0007	0.1856	0.0070	1.8561

**Figure 6.4/10: 2022 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM				
				PC	PC	PEC	PC/AQO	PEC/AQO
				8 HOUR	8 HOUR	8 HOUR	8 HOUR	8 HOUR
		X	Y	$\mu\text{g}/\text{m}^3$	$\text{mg}/\text{m}^3$	$\text{mg}/\text{m}^3$	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	1.63	0.0016	0.1874	0.0163	1.8744
ESR 2	Property along Downhill Lane	433325.17	559682.26	1.38	0.0014	0.1872	0.0138	1.8720
ESR 3	Property off Washington Road	433964.30	559014.14	2.09	0.0021	0.1879	0.0209	1.8790
ESR 4	Property along Boston Crescent	434421.17	559599.51	1.25	0.0012	0.1835	0.0125	1.8345
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	1.12	0.0011	0.1833	0.0112	1.8332
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.80	0.0008	0.1848	0.0080	1.8481
ESR 7	Property at Seven Houses	432334.01	557786.97	0.75	0.0008	0.1893	0.0075	1.8927
ESR 8	Property along Sulgrave Road	431863.91	558150.44	1.19	0.0012	0.1870	0.0119	1.8700
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.73	0.0007	0.1865	0.0073	1.8654
ESR 10	East House Farm	431811.19	559417.59	1.06	0.0011	0.1851	0.0106	1.8507
ESR 11	Property along Follingsby Lane	432337.30	559964.76	1.02	0.0010	0.1859	0.0102	1.8593

### Predicted NMP Concentrations

1.3 The predicted NMP concentrations for the existing sensitive receptors and points across the receptor grid, for each year of meteorological data, are shown in Figures 6.4/11 to 6.4/15, below. The highest results for the receptors considered are highlighted in red.

**Figure 6.4/11: 2018 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	0.1026	0.58	2.05	11.56
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.0879	0.56	1.76	11.27
ESR 3	Property off Washington Road	433964.30	559014.14	0.1095	0.58	2.19	11.70
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.0501	0.48	1.00	9.61
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.0607	0.49	1.21	9.82
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.0577	0.49	1.15	9.77
ESR 7	Property at Seven Houses	432334.01	557786.97	0.0186	0.46	0.37	9.24
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.0227	0.50	0.45	9.98
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.0172	0.49	0.34	9.87
ESR 10	East House Farm	431811.19	559417.59	0.0241	0.49	0.48	9.86
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.0280	0.50	0.56	9.99



**Figure 6.4/12: 2019 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	<b>0.1229</b>	<b>0.60</b>	<b>2.46</b>	<b>11.97</b>
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.1034	0.58	2.07	11.58
ESR 3	Property off Washington Road	433964.30	559014.14	0.1211	0.60	2.42	11.93
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.0623	0.49	1.25	9.85
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.0651	0.50	1.30	9.91
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.0568	0.49	1.14	9.76
ESR 7	Property at Seven Houses	432334.01	557786.97	0.0154	0.46	0.31	9.18
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.0156	0.49	0.31	9.83
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.0145	0.49	0.29	9.81
ESR 10	East House Farm	431811.19	559417.59	0.0185	0.49	0.37	9.75
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.0293	0.50	0.59	10.02

**Figure 6.4/13: 2020 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	0.1086	0.58	2.17	11.68
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.0905	0.57	1.81	11.32
ESR 3	Property off Washington Road	433964.30	559014.14	0.1112	0.59	2.22	11.73
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.0493	0.48	0.99	9.59
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.0631	0.49	1.26	9.87
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.0591	0.49	1.18	9.80
ESR 7	Property at Seven Houses	432334.01	557786.97	0.0203	0.46	0.41	9.28
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.0200	0.50	0.40	9.92
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.0099	0.49	0.20	9.72
ESR 10	East House Farm	431811.19	559417.59	0.0141	0.48	0.28	9.66
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.0220	0.49	0.44	9.87

**Figure 6.4/14: 2021 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	0.1040	0.58	2.08	11.59
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.0862	0.56	1.72	11.23
ESR 3	Property off Washington Road	433964.30	559014.14	0.1210	0.60	2.42	11.93
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.0635	0.49	1.27	9.88
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.0662	0.50	1.32	9.93
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.0635	0.49	1.27	9.89
ESR 7	Property at Seven Houses	432334.01	557786.97	0.0251	0.47	0.50	9.37
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.0238	0.50	0.48	10.00
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.0197	0.50	0.39	9.92
ESR 10	East House Farm	431811.19	559417.59	0.0205	0.49	0.41	9.78
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.0194	0.49	0.39	9.82

**Figure 6.4/15: 2022 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	0.1048	0.58	2.10	11.60
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.0883	0.56	1.77	11.27
ESR 3	Property off Washington Road	433964.30	559014.14	0.1210	0.60	2.42	11.93
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.0605	0.49	1.21	9.82
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.0662	0.50	1.32	9.93
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.0613	0.49	1.23	9.84
ESR 7	Property at Seven Houses	432334.01	557786.97	0.0164	0.46	0.33	9.20
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.0156	0.49	0.31	9.83
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.0101	0.49	0.20	9.72
ESR 10	East House Farm	431811.19	559417.59	0.0138	0.48	0.28	9.65
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.0252	0.50	0.50	9.93

### Predicted Ethyl Carbonate Concentrations

1.4 The predicted Ethyl Carbonate concentrations for the existing sensitive receptors and points across the receptor grid, for each year of meteorological data, are shown in Figures 6.4/16 to 6.4/20, below. The highest results for the receptors considered are highlighted in red.

Figure 6.4/16: 2018 Meteorological Data

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	0.26	0.73	5.17	14.67
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.22	0.70	4.43	13.94
ESR 3	Property off Washington Road	433964.30	559014.14	0.26	0.74	5.25	14.76
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.13	0.56	2.55	11.16
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.15	0.58	2.96	11.57
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.14	0.57	2.87	11.49
ESR 7	Property at Seven Houses	432334.01	557786.97	0.04	0.49	0.89	9.76
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.06	0.53	1.12	10.64
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.04	0.52	0.84	10.37
ESR 10	East House Farm	431811.19	559417.59	0.06	0.53	1.28	10.66
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.07	0.54	1.46	10.88

**Figure 6.4/17: 2019 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	<b>0.31</b>	<b>0.78</b>	<b>6.10</b>	<b>15.61</b>
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.26	0.74	5.24	14.74
ESR 3	Property off Washington Road	433964.30	559014.14	0.28	0.76	5.68	15.19
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.16	0.59	3.19	11.80
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.16	0.59	3.18	11.79
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.14	0.57	2.86	11.48
ESR 7	Property at Seven Houses	432334.01	557786.97	0.04	0.48	0.74	9.61
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.04	0.51	0.77	10.30
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.03	0.51	0.69	10.21
ESR 10	East House Farm	431811.19	559417.59	0.05	0.52	0.97	10.34
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.08	0.55	1.54	10.97

**Figure 6.4/18: 2020 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	0.27	0.75	5.49	15.00
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.23	0.71	4.62	14.13
ESR 3	Property off Washington Road	433964.30	559014.14	0.27	0.74	5.38	14.89
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.13	0.56	2.50	11.11
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.16	0.59	3.10	11.71
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.15	0.58	2.95	11.57
ESR 7	Property at Seven Houses	432334.01	557786.97	0.05	0.49	0.98	9.85
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.05	0.53	1.01	10.53
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.03	0.50	0.51	10.03
ESR 10	East House Farm	431811.19	559417.59	0.04	0.51	0.73	10.10
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.06	0.53	1.15	10.57

Figure 6.4/19: 2021 Meteorological Data

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	0.26	0.74	5.24	14.75
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.22	0.69	4.39	13.90
ESR 3	Property off Washington Road	433964.30	559014.14	0.28	0.76	5.67	15.18
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.16	0.59	3.27	11.88
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.16	0.59	3.24	11.84
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.16	0.59	3.21	11.83
ESR 7	Property at Seven Houses	432334.01	557786.97	0.06	0.50	1.21	10.08
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.06	0.54	1.19	10.72
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.05	0.52	0.97	10.49
ESR 10	East House Farm	431811.19	559417.59	0.05	0.52	1.05	10.43
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.05	0.52	1.02	10.45

**Figure 6.4/20: 2020 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	0.27	0.74	5.32	14.82
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.23	0.70	4.54	14.05
ESR 3	Property off Washington Road	433964.30	559014.14	0.29	0.76	5.72	15.23
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.15	0.58	3.06	11.66
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.16	0.59	3.22	11.82
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.16	0.59	3.13	11.75
ESR 7	Property at Seven Houses	432334.01	557786.97	0.04	0.48	0.83	9.70
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.04	0.52	0.79	10.31
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.02	0.50	0.49	10.01
ESR 10	East House Farm	431811.19	559417.59	0.04	0.50	0.72	10.09
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.07	0.54	1.33	10.76

### Predicted DiEthyl Carbonate Concentrations

1.5 The predicted Ethyl Carbonate concentrations for the existing sensitive receptors and points across the receptor grid, for each year of meteorological data, are shown in Figures 6.4/21 to 6.4/25, below. The highest results for the receptors considered are highlighted in red.

Figure 6.4/21: 2018 Meteorological Data

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	0.27	0.75	5.40	14.91
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.20	0.67	3.98	13.49
ESR 3	Property off Washington Road	433964.30	559014.14	0.36	0.83	7.12	16.63
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.13	0.56	2.62	11.22
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.16	0.59	3.19	11.80
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.15	0.58	2.95	11.57
ESR 7	Property at Seven Houses	432334.01	557786.97	0.04	0.48	0.73	9.60
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.04	0.52	0.83	10.35
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.04	0.52	0.83	10.35
ESR 10	East House Farm	431811.19	559417.59	0.05	0.52	1.08	10.46
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.07	0.54	1.37	10.80



**Figure 6.4/22: 2019 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	0.30	0.77	5.94	15.44
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.22	0.69	4.37	13.88
ESR 3	Property off Washington Road	433964.30	559014.14	<b>0.40</b>	<b>0.87</b>	<b>7.94</b>	<b>17.45</b>
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.18	0.61	3.54	12.14
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.17	0.60	3.38	11.98
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.15	0.58	2.91	11.53
ESR 7	Property at Seven Houses	432334.01	557786.97	0.03	0.48	0.66	9.54
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.03	0.51	0.65	10.17
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.03	0.51	0.68	10.21
ESR 10	East House Farm	431811.19	559417.59	0.05	0.52	0.94	10.32
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.06	0.53	1.26	10.69

**Figure 6.4/23: 2020 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
		X	Y	ANNUAL µg/m <sup>3</sup>	ANNUAL µg/m <sup>3</sup>	ANNUAL %	ANNUAL %
ESR 1	Hylton Bridge Farm	433347.47	559511.37	0.26	0.73	5.14	14.65
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.19	0.66	3.78	13.29
ESR 3	Property off Washington Road	433964.30	559014.14	0.38	0.86	7.67	17.18
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.13	0.56	2.67	11.28
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.17	0.60	3.40	12.00
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.15	0.58	3.05	11.67
ESR 7	Property at Seven Houses	432334.01	557786.97	0.04	0.49	0.86	9.73
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.04	0.52	0.86	10.38
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.03	0.50	0.56	10.09
ESR 10	East House Farm	431811.19	559417.59	0.03	0.50	0.63	10.01
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.05	0.53	1.08	10.51

**Figure 6.4/24: 2021 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	0.25	0.72	4.95	14.45
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.19	0.66	3.71	13.22
ESR 3	Property off Washington Road	433964.30	559014.14	0.39	0.86	7.76	17.27
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.17	0.60	3.33	11.93
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.18	0.61	3.52	12.13
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.17	0.60	3.31	11.93
ESR 7	Property at Seven Houses	432334.01	557786.97	0.04	0.49	0.88	9.75
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.05	0.52	0.91	10.43
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.05	0.52	0.94	10.47
ESR 10	East House Farm	431811.19	559417.59	0.05	0.52	1.07	10.45
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.05	0.52	1.04	10.47

**Figure 6.4/25: 2022 Meteorological Data**

RECEPTOR	ADDRESS	GRID REFERENCE		LONG TERM ANNUAL MEAN			
				PC	PEC	PC/AQO	PEC/AQO
				ANNUAL	ANNUAL	ANNUAL	ANNUAL
		X	Y	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	%	%
ESR 1	Hylton Bridge Farm	433347.47	559511.37	0.27	0.75	5.47	14.97
ESR 2	Property along Downhill Lane	433325.17	559682.26	0.20	0.68	4.01	13.52
ESR 3	Property off Washington Road	433964.30	559014.14	0.39	0.87	7.82	17.33
ESR 4	Property along Boston Crescent	434421.17	559599.51	0.16	0.59	3.23	11.84
ESR 5	Property along Baltimore Avenue	434627.56	559171.12	0.17	0.60	3.44	12.05
ESR 6	Property along Ferryboat Lane	434701.01	558783.56	0.16	0.59	3.18	11.80
ESR 7	Property at Seven Houses	432334.01	557786.97	0.03	0.48	0.69	9.56
ESR 8	Property along Sulgrave Road	431863.91	558150.44	0.03	0.51	0.60	10.13
ESR 9	Property along Watcombe Close	431633.25	558996.97	0.03	0.50	0.57	10.09
ESR 10	East House Farm	431811.19	559417.59	0.03	0.50	0.62	9.99
ESR 11	Property along Follingsby Lane	432337.30	559964.76	0.06	0.53	1.24	10.67



### Predicted NO<sub>2</sub> Concentrations and Deposition Rates for Existing Sensitive Ecological Receptor Points

1.6 The predicted NO<sub>2</sub> concentrations as a percentage of the relevant critical levels for the existing sensitive receptor points within the considered designated habitat sites, for each year of meteorological data, are shown in Figures 6.4/26 to 6.4/28, below. The highest results for the receptor points considered are underlined.

Figure 6.4/26: Barmston Pond LNR

	Nox Annual Mean as % of Critical Level					Nox 24 Hour Mean as % of Critical Level				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
ECO 1	0.28%	0.20%	0.25%	0.33%	0.21%	2.04%	1.95%	1.92%	2.39%	3.03%
ECO 2	0.31%	0.21%	0.29%	0.35%	0.22%	2.21%	1.71%	2.11%	2.32%	2.01%
ECO 3	0.33%	0.20%	0.35%	<u>0.37%</u>	0.26%	3.05%	1.29%	2.86%	4.30%	2.52%
ECO 4	0.26%	0.15%	0.28%	0.29%	0.27%	2.83%	1.93%	2.19%	<u>5.21%</u>	3.03%
ECO 5	0.21%	0.12%	0.23%	0.23%	0.19%	2.39%	0.98%	2.12%	3.62%	2.10%

Figure 6.4/27: Hylton Dene LNR

	Nox Annual Mean as % of Critical Level					Nox 24 Hour Mean as % of Critical Level				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
ECO 6	0.48%	0.47%	0.36%	0.55%	0.53%	2.77%	2.70%	3.10%	2.46%	<u>3.88%</u>
ECO 7	0.58%	0.48%	0.44%	0.57%	0.63%	3.09%	2.28%	2.63%	1.73%	2.86%
ECO 8	0.65%	0.50%	0.52%	0.57%	<u>0.66%</u>	3.32%	1.88%	2.34%	1.68%	2.14%
ECO 9	0.61%	0.48%	0.52%	0.55%	0.59%	2.13%	1.99%	2.32%	1.44%	2.02%
ECO 10	0.49%	0.49%	0.51%	0.54%	0.54%	1.58%	1.36%	1.89%	1.40%	1.43%

Figure 6.4/28: Northumbria Coast Ramsar site/SPA

	Nox Annual Mean as % of Critical Level					Nox 24 Hour Mean as % of Critical Level				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
ECO 11	0.02%	0.01%	0.01%	0.01%	0.01%	0.14%	0.20%	0.20%	0.10%	0.11%
ECO 12	0.02%	0.02%	0.01%	0.02%	0.02%	0.15%	0.24%	0.23%	0.12%	0.13%
ECO 13	0.02%	0.02%	0.02%	0.02%	0.02%	0.20%	0.13%	0.19%	0.15%	0.13%
ECO 14	0.03%	0.03%	0.02%	0.03%	0.03%	0.19%	0.23%	0.20%	0.22%	0.27%
ECO 15	0.09%	0.08%	0.09%	0.10%	0.09%	0.22%	0.31%	0.23%	0.36%	0.30%
ECO 16	0.08%	0.08%	0.09%	<b>0.10%</b>	0.08%	0.27%	0.29%	0.27%	<b>0.40%</b>	0.24%
ECO 17	0.07%	0.07%	0.08%	0.08%	0.07%	0.15%	0.18%	0.26%	0.29%	0.24%
ECO 18	0.06%	0.07%	0.07%	0.07%	0.07%	0.18%	0.19%	0.26%	0.28%	0.20%
ECO 19	0.06%	0.07%	0.07%	0.07%	0.06%	0.18%	0.21%	0.23%	0.24%	0.17%
ECO 20	0.05%	0.06%	0.06%	0.06%	0.06%	0.14%	0.16%	0.19%	0.24%	0.14%
ECO 21	0.04%	0.05%	0.05%	0.05%	0.05%	0.15%	0.15%	0.17%	0.17%	0.13%
ECO 25	0.03%	0.03%	0.04%	0.03%	0.03%	0.17%	0.12%	0.14%	0.18%	0.16%
ECO 26	0.03%	0.02%	0.03%	0.03%	0.03%	0.17%	0.16%	0.13%	0.13%	0.14%
ECO 27	0.02%	0.02%	0.02%	0.02%	0.03%	0.10%	0.10%	0.12%	0.12%	0.16%

- 1.7 As discussed within ES Chapter 6, High Woods Local Wildlife Site (LWS) lies outside of the Uniform Cartesian Receptor Grid included in the model and, therefore, the highest results for the nearby Barmston Pond Local Nature Reserve (LNR) have been applied to the LWS as a robust approach.
- 1.8 For the assessment of the Severn Houses LWS, the results of the closest grid point to the site have been used (432350, 557800). The highest modelling results were observed when using the 2021 meteorological data.
- 1.9 For the assessment of Elliscope Farm East/Hylton Bridge candidate LWS, the results of the closest grid point to the site have been used

(433550, 559850). The highest modelling results were observed when using the 2022 meteorological data.

- 1.10 The results for all LWSs considered in the assessment are included in Section 6.5 of ES Chapter 6.
- 1.11 The predicted nutrient nitrogen and acid deposition as a percentage of the relevant critical loads for the existing sensitive receptor points within the considered designated habitat sites, for each year of meteorological data, are shown in Figures 6.4/29 to 6.4/31, below. The highest results for the receptor points considered are underlined.

Figure 6.4/29: Barmston Pond LNR

	NN Deposition Rate as % of Critical Load					PC as % of CLMaxN				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
ECO 1	0.24%	0.18%	0.21%	0.28%	0.18%	0.06%	0.05%	0.06%	0.07%	0.05%
ECO 2	0.27%	0.18%	0.25%	0.30%	0.19%	0.07%	0.05%	0.07%	0.08%	0.05%
ECO 3	0.29%	0.17%	0.30%	<u>0.32%</u>	0.23%	0.07%	0.05%	0.08%	<u>0.08%</u>	0.06%
ECO 4	0.23%	0.13%	0.24%	0.25%	0.23%	0.06%	0.03%	0.06%	0.06%	0.06%
ECO 5	0.18%	0.10%	0.20%	0.20%	0.16%	0.05%	0.03%	0.05%	0.05%	0.04%

Figure 6.4/30: Hylton Dene LNR

	NN Deposition Rate as % of Critical Load					PC as % of CLMaxN				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
ECO 6	0.41%	0.40%	0.31%	0.48%	0.45%	0.11%	0.11%	0.08%	0.12%	0.12%
ECO 7	0.50%	0.41%	0.38%	0.49%	0.55%	0.13%	0.11%	0.10%	0.13%	0.14%
ECO 8	0.57%	0.43%	0.45%	0.49%	<u>0.57%</u>	0.15%	0.11%	0.12%	0.13%	<u>0.15%</u>
ECO 9	0.53%	0.42%	0.45%	0.47%	0.51%	0.14%	0.11%	0.12%	0.12%	0.13%
ECO 10	0.42%	0.43%	0.44%	0.47%	0.46%	0.11%	0.11%	0.12%	0.12%	0.12%

Figure 6.4/26: Northumbria Coast Ramsar site/SPA

	NN Deposition Rate as % of Critical Load					PC as % of CLMaxN				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
ECO 11	0.01%	0.01%	0.01%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%
ECO 12	0.01%	0.01%	0.01%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%
ECO 13	0.02%	0.02%	0.02%	0.02%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%
ECO 14	0.03%	0.02%	0.02%	0.03%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%
ECO 15	0.07%	0.07%	0.08%	0.08%	0.08%	0.01%	0.01%	0.01%	0.01%	0.01%
ECO 16	0.07%	0.07%	0.08%	<b>0.09%</b>	0.07%	0.01%	0.01%	0.01%	<b>0.01%</b>	0.01%
ECO 17	0.06%	0.06%	0.07%	0.07%	0.06%	0.00%	0.00%	0.01%	0.00%	0.00%
ECO 18	0.05%	0.06%	0.06%	0.06%	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%
ECO 19	0.05%	0.06%	0.06%	0.06%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
ECO 20	0.05%	0.05%	0.05%	0.05%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
ECO 21	0.04%	0.04%	0.04%	0.04%	0.04%	0.00%	0.00%	0.00%	0.00%	0.00%
ECO 25	0.03%	0.02%	0.03%	0.02%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%
ECO 26	0.03%	0.02%	0.03%	0.02%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%
ECO 27	0.02%	0.02%	0.02%	0.02%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%

1.12 The results for all LWSs and candidate LWSs considered in the assessment are included in section 6.5 of ES Chapter 6.