Riverside Energy Park

Preliminary Environmental Information Report

APPENDIX:

C.3

PLANNING INSPECTORATE REFERENCE NUMBER:

EN010093

POINT SOURCES AND EMISSIONS MODEL INPUTS

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Planning Act 2008 | Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

CORY
RIVERSIDE ENERGY

Riverside Energy Park

Air Quality Appendix C3

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C.3.1 Point Sources and Emissions Model Inputs

Table C3.1.1 Input Parameters for Point Sources Modelled for Baseline Concentrations

Source Name	Crossness Sewage Sludge Incinerator	Riverside Resource Recovery Facility
OS Grid Co-ordinate X	549150	549700
OS Grid Co-ordinate Y	180740	180574
Stack height (m)	60	90
Diameter (m)	1.27	3.93
Flue gas temperature (°C)	120	129
Exit Velocity (m/s)	26.1	21

Table C3.1.2 Modelled Emission Rates for Baseline Point Sources

	Emission Rate (g/s)	
Pollutant	Crossness Sewage Sludge Incinerator	Riverside Resource Recovery Facility
Arsenic	3.2×10^{-5}	0.003
Benzene	-	1.53
Benzo(a)pyrene	3.2×10^{-5}	1.4×10^{-5}
Cadmium	3.2×10^{-5}	0.008
Chromium VI	-	2.0×10^{-5}
Lead	0.003	0.077
Manganese	-	0.077
Nickel	-	0.077
Nitrogen Dioxide	3.2	0.21
Particulates (PM_{10}/$PM_{2.5}$)	0.3	1.53
Particulates (PM_{10})	0.3	1.53

Table C3.1.3 Acid Deposition Conversion Rates

Pollutant	Conversion	Conversion Factor
NO_x	KgN/ha/yr to keqN/ha/yr	0.07143
Sulphur Dioxide	KgS/ha/yr to keqS/ha/yr	0.0625

C3.2 Impact of ERF Emissions – Human Health Receptors

Table C.3.2.1 Predicted Annual Arsenic Concentrations

Sensitive Human Receptor ID	REP PC ($\mu g/m^3$)	PC (%)	Background (2016) ($\mu g/m^3$)	REP + RRRF + Crossness ($\mu g/m^3$)	Total PEC ($\mu g/m^3$)	PEC (%)	IAQM Magnitude of Change
R1	7.5×10^{-5}	2.5%	9.9×10^{-4}	4.6×10^{-5}	0.0010	34.5%	Negligible
R2	7.6×10^{-5}	2.5%		7.1×10^{-5}	0.0011	35.3%	Negligible
R3	8.1×10^{-5}	2.7%		4.8×10^{-5}	0.00102	34.6%	Negligible
R4	2.8×10^{-5}	1.0%		6.1×10^{-5}	0.0010	35.0%	Negligible
R5	9.0×10^{-5}	3.0%		9.8×10^{-5}	0.0011	36.2%	Negligible
R6	7.4×10^{-5}	2.5%		1.5×10^{-4}	0.0011	38.0%	Negligible
R7	1.3×10^{-4}	4.3%		2.3×10^{-4}	0.0012	40.6%	Negligible
R8	1.7×10^{-4}	5.7%		2.2×10^{-4}	0.0012	40.1%	Minor
R8B	1.7×10^{-4}	5.6%		2.3×10^{-4}	0.0012	40.6%	Minor
R9	2.7×10^{-5}	0.9%		2.7×10^{-5}	0.0010	33.9%	Negligible
R10	2.4×10^{-5}	0.8%		2.1×10^{-5}	0.0010	33.7%	Negligible
R11	9.7×10^{-5}	3.2%		1.2×10^{-4}	0.0011	36.8%	Negligible
R12	2.9×10^{-5}	1.0%		2.8×10^{-5}	0.0010	33.9%	Negligible
R13	3.2×10^{-5}	1.1%		3.2×10^{-5}	0.0010	34.0%	Negligible
R14	2.7×10^{-5}	0.9%		3.3×10^{-5}	0.0010	34.1%	Negligible
R15	8.6×10^{-5}	2.9%		9.1×10^{-5}	0.0011	36.0%	Negligible
R16	7.5×10^{-5}	2.5%		4.1×10^{-5}	0.0010	34.3%	Negligible
R16B	6.9×10^{-5}	2.3%		3.9×10^{-5}	0.0010	34.3%	Negligible
R17	8.4×10^{-5}	2.8%		8.9×10^{-5}	0.0011	35.9%	Negligible
R18A 1st	1.4×10^{-4}	4.6%		2.4×10^{-4}	0.0012	41.0%	Negligible
R18B 4th	1.4×10^{-4}	4.6%		2.4×10^{-4}	0.0012	41.0%	Negligible
R19A 1st	1.1×10^{-4}	3.7%		9.4×10^{-5}	0.0011	36.1%	Negligible
R19B 6th	1.1×10^{-4}	3.7%		9.7×10^{-5}	0.0011	36.2%	Negligible
R20A GF	1.4×10^{-4}	4.5%		2.4×10^{-4}	0.0012	41.0%	Negligible
R20B 5th	1.4×10^{-4}	4.5%		2.4×10^{-4}	0.0012	41.0%	Negligible
R21	2.5×10^{-5}	0.8%		2.3×10^{-5}	0.0010	33.7%	Negligible
R22	1.2×10^{-4}	4.1%		2.1×10^{-4}	0.0012	40.0%	Negligible
R23	3.9×10^{-5}	1.3%		3.9×10^{-5}	0.0010	34.3%	Negligible
R24	2.4×10^{-5}	0.8%		2.4×10^{-5}	0.0010	33.8%	Negligible
R25	2.4×10^{-5}	0.8%		2.3×10^{-5}	0.0010	33.7%	Negligible
R26	5.5×10^{-5}	1.8%		6.4×10^{-5}	0.0011	35.1%	Negligible
R27	1.3×10^{-5}	0.4%		2.2×10^{-5}	0.0010	33.7%	Negligible

Table C.3.2.2 Predicted Annual Average Benzene Concentrations

Sensitive Human Receptor ID	REP PC (µg/m^3)	PC (%)	Background (2016) (µg/m^3)	REP + RRRF + Crossness (µg/m^3)	Total PEC (µg/m^3)	PEC (%)	IAQM Magnitude of Change
R1	0.03	0.6%	0.62	0.02	0.64	12.8%	Negligible
R2	0.03	0.6%	0.63	0.03	0.66	13.1%	Negligible
R3	0.03	0.7%	0.68	0.02	0.71	14.1%	Negligible
R4	0.01	0.2%	0.43	0.03	0.45	9.1%	Negligible
R5	0.04	0.7%	0.64	0.04	0.69	13.7%	Negligible
R6	0.03	0.6%	0.44	0.07	0.51	10.2%	Negligible
R7	0.05	1.0%	0.55	0.10	0.65	13.1%	Negligible
R8	0.07	1.4%	0.56	0.09	0.65	13.1%	Negligible
R8B	0.07	1.3%	0.56	0.10	0.66	13.2%	Negligible
R9	0.01	0.2%	0.70	0.01	0.71	14.2%	Negligible
R10	0.01	0.2%	0.59	0.01	0.60	12.0%	Negligible
R11	0.04	0.8%	0.56	0.05	0.61	12.2%	Negligible
R12	0.01	0.2%	0.71	0.01	0.72	14.5%	Negligible
R13	0.01	0.3%	0.91	0.01	0.92	18.4%	Negligible
R14	0.01	0.2%	0.71	0.01	0.73	14.5%	Negligible
R15	0.03	0.7%	0.56	0.04	0.60	12.0%	Negligible
R16	0.03	0.6%	0.62	0.02	0.64	12.8%	Negligible
R16B	0.03	0.6%	0.62	0.02	0.64	12.7%	Negligible
R17	0.03	0.7%	0.64	0.04	0.68	13.7%	Negligible
R18A 1st	0.06	1.1%	0.55	0.11	0.66	13.2%	Negligible
R18B 4th	0.06	1.1%	0.55	0.11	0.66	13.2%	Negligible
R19A 1st	0.04	0.9%	0.63	0.04	0.67	13.3%	Negligible
R19B 6th	0.04	0.9%	0.63	0.04	0.67	13.3%	Negligible
R20A GF	0.05	1.1%	0.55	0.11	0.66	13.2%	Negligible
R20B 5th	0.05	1.1%	0.55	0.11	0.66	13.2%	Negligible
R21	0.01	0.2%	0.70	0.01	0.71	14.2%	Negligible
R22	0.05	1.0%	0.55	0.09	0.65	12.9%	Negligible
R23	0.02	0.3%	0.65	0.02	0.66	13.3%	Negligible
R24	0.01	0.2%	0.63	0.01	0.64	12.7%	Negligible
R25	0.01	0.2%	0.63	0.01	0.64	12.7%	Negligible
R26	0.02	0.4%	0.68	0.03	0.71	14.2%	Negligible
R27	0.01	0.1%	0.63	0.01	0.63	12.7%	Negligible

Table C3.2.3 Predicted Annual Average Benzo(a)pyrene Concentrations

Sensitive Human Receptor ID	REP PC ($\mu g/m^3$)	PC (%)	Background (2016) ($\mu g/m^3$)	REP + RRRF + Crossness ($\mu g/m^3$)	Total PEC ($\mu g/m^3$)	PEC (%)	IAQM Magnitude of Change
R1	6.3×10^{-7}	0.3%	2.1×10^{-4}	1.0×10^{-6}	2.1×10^{-4}	82.7%	Negligible
R2	6.4×10^{-7}	0.3%		1.5×10^{-6}	2.1×10^{-4}	82.9%	Negligible
R3	6.8×10^{-7}	0.3%		8.4×10^{-7}	2.1×10^{-4}	82.7%	Negligible
R4	2.4×10^{-7}	0.1%		8.2×10^{-7}	2.1×10^{-4}	82.7%	Negligible
R5	7.6×10^{-7}	0.3%		2.0×10^{-6}	2.1×10^{-4}	83.1%	Negligible
R6	6.2×10^{-7}	0.3%		2.0×10^{-6}	2.1×10^{-4}	83.1%	Negligible
R7	1.1×10^{-6}	0.4%		3.4×10^{-6}	2.1×10^{-4}	83.7%	Negligible
R8	1.4×10^{-6}	0.6%		4.3×10^{-6}	2.1×10^{-4}	84.0%	Negligible
R8B	1.4×10^{-6}	0.6%		4.5×10^{-6}	2.1×10^{-4}	84.1%	Negligible
R9	2.3×10^{-7}	0.1%		4.7×10^{-7}	2.1×10^{-4}	82.5%	Negligible
R10	2.0×10^{-7}	0.1%		3.9×10^{-7}	2.1×10^{-4}	82.5%	Negligible
R11	8.1×10^{-7}	0.3%		2.2×10^{-6}	2.1×10^{-4}	83.2%	Negligible
R12	2.4×10^{-7}	0.1%		5.2×10^{-7}	2.1×10^{-4}	82.5%	Negligible
R13	2.7×10^{-7}	0.1%		5.1×10^{-7}	2.1×10^{-4}	82.5%	Negligible
R14	2.3×10^{-7}	0.1%		5.7×10^{-7}	2.1×10^{-4}	82.6%	Negligible
R15	7.3×10^{-7}	0.3%		1.9×10^{-6}	2.1×10^{-4}	83.1%	Negligible
R16	6.3×10^{-7}	0.3%		8.7×10^{-7}	2.1×10^{-4}	82.7%	Negligible
R16B	5.8×10^{-7}	0.3%		8.4×10^{-7}	2.1×10^{-4}	82.7%	Negligible
R17	7.1×10^{-7}	0.3%		1.8×10^{-6}	2.1×10^{-4}	83.0%	Negligible
R18A 1st	1.2×10^{-6}	0.5%		3.6×10^{-6}	2.1×10^{-4}	83.8%	Negligible
R18B 4th	1.2×10^{-6}	0.5%		3.6×10^{-6}	2.1×10^{-4}	83.8%	Negligible
R19A 1st	9.3×10^{-7}	0.4%		1.8×10^{-6}	2.1×10^{-4}	83.0%	Negligible
R19B 6th	9.4×10^{-7}	0.4%		1.8×10^{-6}	2.1×10^{-4}	83.1%	Negligible
R20A GF	1.1×10^{-6}	0.5%		3.50×10^{-6}	2.1×10^{-4}	83.7%	Negligible
R20B 5th	1.1×10^{-6}	0.5%		3.51×10^{-6}	2.1×10^{-4}	83.7%	Negligible
R21	2.1×10^{-7}	0.1%		4.2×10^{-7}	2.1×10^{-4}	82.5%	Negligible
R22	1.0×10^{-6}	0.4%		3.2×10^{-6}	2.1×10^{-4}	83.6%	Negligible
R23	3.3×10^{-7}	0.1%		6.4×10^{-7}	2.1×10^{-4}	82.6%	Negligible
R24	2.0×10^{-7}	0.1%		3.7×10^{-7}	2.1×10^{-4}	82.5%	Negligible
R25	2.0×10^{-7}	0.1%		3.7×10^{-7}	2.1×10^{-4}	82.5%	Negligible
R26	4.6×10^{-7}	0.2%		1.3×10^{-6}	2.1×10^{-4}	82.8%	Negligible
R27	1.1×10^{-7}	0.04%		3.5×10^{-7}	2.1×10^{-4}	82.5%	Negligible

Table C3.2.4 Predicted Annual Average Cadmium Concentrations

Sensitive Human Receptor ID	REP PC ($\mu g/m^3$)	PC (%)	Background (2016) ($\mu g/m^3$)	REP + RRRF + Crossness ($\mu g/m^3$)	Total PEC ($\mu g/m^3$)	PEC (%)	IAQM Magnitude of Change
R1	6.0×10^{-5}	1.2%	2.5×10^{-4}	5.8×10^{-5}	3.0×10^{-4}	6.1%	Negligible
R2	6.1×10^{-5}	1.2%		7.9×10^{-5}	3.3×10^{-4}	6.5%	Negligible
R3	6.5×10^{-5}	1.3%		7.2×10^{-5}	3.2×10^{-4}	6.4%	Negligible
R4	2.3×10^{-5}	0.5%		1.1×10^{-4}	3.5×10^{-4}	7.0%	Negligible
R5	7.2×10^{-5}	1.4%		1.3×10^{-4}	3.7×10^{-4}	7.5%	Negligible
R6	5.9×10^{-5}	1.2%		2.6×10^{-4}	5.0×10^{-4}	10.0%	Negligible
R7	1.0×10^{-4}	2.1%		3.6×10^{-4}	6.0×10^{-4}	12.1%	Negligible
R8	1.4×10^{-4}	2.7%		2.8×10^{-4}	5.2×10^{-4}	10.5%	Negligible
R8B	1.3×10^{-4}	2.7%		3.0×10^{-4}	5.4×10^{-4}	10.9%	Negligible
R9	2.2×10^{-5}	0.4%		3.6×10^{-5}	2.8×10^{-4}	5.6%	Negligible
R10	1.9×10^{-5}	0.4%		2.8×10^{-5}	2.7×10^{-4}	5.5%	Negligible
R11	7.7×10^{-5}	1.5%		1.6×10^{-4}	4.0×10^{-4}	8.0%	Negligible
R12	2.3×10^{-5}	0.5%		3.8×10^{-5}	2.8×10^{-4}	5.7%	Negligible
R13	2.2×10^{-5}	0.5%		4.6×10^{-5}	2.9×10^{-4}	5.8%	Negligible
R14	2.2×10^{-5}	0.4%		4.5×10^{-5}	2.9×10^{-4}	5.8%	Negligible
R15	6.9×10^{-5}	1.4%		1.2×10^{-4}	3.6×10^{-4}	7.3%	Negligible
R16	6.0×10^{-5}	1.2%		5.8×10^{-5}	3.0×10^{-4}	6.1%	Negligible
R16B	5.5×10^{-5}	1.1%		5.3×10^{-5}	3.0×10^{-4}	6.0%	Negligible
R17	6.7×10^{-5}	1.3%		1.1×10^{-4}	3.6×10^{-4}	7.2%	Negligible
R18A 1st	1.1×10^{-4}	2.2%		3.7×10^{-4}	6.2×10^{-4}	12.3%	Negligible
R18B 4th	1.1×10^{-4}	2.2%		3.7×10^{-4}	6.2×10^{-4}	12.4%	Negligible
R19A 1st	8.8×10^{-5}	1.8%		9.5×10^{-5}	3.4×10^{-4}	6.8%	Negligible
R19B 6th	9.0×10^{-5}	1.8%		1.0×10^{-4}	3.5×10^{-4}	6.9%	Negligible
R20A GF	1.1×10^{-4}	2.2%		3.7×10^{-4}	6.2×10^{-4}	12.4%	Negligible
R20B 5th	1.1×10^{-4}	2.2%		3.8×10^{-4}	6.2×10^{-4}	12.4%	Negligible
R21	2.0×10^{-5}	0.4%		3.2×10^{-5}	2.8×10^{-4}	5.6%	Negligible
R22	9.8×10^{-5}	2.0%		3.2×10^{-4}	5.7×10^{-4}	11.3%	Negligible
R23	3.1×10^{-5}	0.6%		5.6×10^{-5}	3.0×10^{-4}	6.0%	Negligible
R24	1.9×10^{-5}	0.4%		3.4×10^{-5}	2.8×10^{-4}	5.6%	Negligible
R25	1.9×10^{-5}	0.4%		3.4×10^{-5}	2.8×10^{-4}	5.6%	Negligible
R26	4.4×10^{-5}	0.9%		8.9×10^{-5}	3.3×10^{-4}	6.7%	Negligible
R27	1.0×10^{-5}	0.2%		3.4×10^{-5}	2.8×10^{-4}	5.6%	Negligible

Table C3.2.5 Predicted Annual Average Chromium (VI) Concentrations

Sensitive Human Receptor ID	REP PC ($\mu g/m^3$)	PC (%)	Background (2016) ($\mu g/m^3$)	REP + RRRF + Crossness ($\mu g/m^3$)	Total PEC ($\mu g/m^3$)	PEC (%)	IAQM Magnitude of Change
R1	3.9×10^{-7}	0.2%	3.2×10^{-4}	2.5×10^{-7}	3.2×10^{-4}	161%	Negligible
R2	4.0×10^{-7}	0.2%		3.8×10^{-7}	3.2×10^{-4}	161%	Negligible
R3	4.2×10^{-7}	0.2%		2.7×10^{-7}	3.2×10^{-4}	161%	Negligible
R4	1.5×10^{-7}	0.1%		3.6×10^{-7}	3.2×10^{-4}	161%	Negligible
R5	4.7×10^{-7}	0.2%		5.4×10^{-7}	3.2×10^{-4}	161%	Negligible
R6	3.8×10^{-7}	0.2%		8.9×10^{-7}	3.2×10^{-4}	161%	Negligible
R7	6.8×10^{-7}	0.3%		1.3×10^{-6}	3.2×10^{-4}	161%	Negligible
R8	8.8×10^{-7}	0.4%		1.2×10^{-6}	3.2×10^{-4}	161%	Negligible
R8B	8.7×10^{-7}	0.4%		1.3×10^{-6}	3.2×10^{-4}	161%	Negligible
R9	1.4×10^{-7}	0.1%		1.5×10^{-7}	3.2×10^{-4}	161%	Negligible
R10	1.3×10^{-7}	0.1%		1.2×10^{-7}	3.2×10^{-4}	161%	Negligible
R11	5.0×10^{-7}	0.3%		6.4×10^{-7}	3.2×10^{-4}	161%	Negligible
R12	1.5×10^{-7}	0.1%		1.6×10^{-7}	3.2×10^{-4}	161%	Negligible
R13	1.7×10^{-7}	0.1%		1.8×10^{-7}	3.2×10^{-4}	161%	Negligible
R14	1.4×10^{-7}	0.1%		1.9×10^{-7}	3.2×10^{-4}	161%	Negligible
R15	4.5×10^{-7}	0.2%		5.1×10^{-7}	3.2×10^{-4}	161%	Negligible
R16	3.9×10^{-7}	0.2%		2.3×10^{-7}	3.2×10^{-4}	161%	Negligible
R16B	3.6×10^{-7}	0.2%		2.2×10^{-7}	3.2×10^{-4}	161%	Negligible
R17	4.4×10^{-7}	0.2%		4.9×10^{-7}	3.2×10^{-4}	161%	Negligible
R18A 1st	7.2×10^{-7}	0.4%		1.4×10^{-6}	3.2×10^{-4}	161%	Negligible
R18B 4th	$7. \times 10^{-7}$	0.4%		1.4×10^{-6}	3.2×10^{-4}	161%	Negligible
R19A 1st	5.7×10^{-7}	0.3%		5.0×10^{-7}	3.2×10^{-4}	161%	Negligible
R19B 6th	5.8×10^{-7}	0.3%		5.2×10^{-7}	3.2×10^{-4}	161%	Negligible
R20A GF	7.1×10^{-7}	0.4%		1.4×10^{-6}	3.2×10^{-4}	161%	Negligible
R20B 5th	7.1×10^{-7}	0.4%		1.4×10^{-6}	3.2×10^{-4}	161%	Negligible
R21	1.3×10^{-7}	0.1%		1.3×10^{-7}	3.2×10^{-4}	161%	Negligible
R22	6.4×10^{-7}	0.3%		1.2×10^{-6}	3.2×10^{-4}	161%	Negligible
R23	2.0×10^{-7}	0.1%		2.2×10^{-7}	3.2×10^{-4}	161%	Negligible
R24	1.3×10^{-7}	0.1%		1.3×10^{-7}	3.2×10^{-4}	161%	Negligible
R25	1.2×10^{-7}	0.1%		1.3×10^{-7}	3.2×10^{-4}	161%	Negligible
R26	2.8×10^{-7}	0.1%		3.6×10^{-7}	3.2×10^{-4}	161%	Negligible
R27	7.0×10^{-8}	<0.1%		1.3×10^{-7}	3.2×10^{-4}	161%	Negligible

Table C3.2.6 Predicted Annual Mean Lead Concentrations

Sensitive Human Receptor ID	REP PC ($\mu g/m^3$)	PC (%)	Background (2016) ($\mu g/m^3$)	REP + RRRF + Crossness ($\mu g/m^3$)	Total PEC ($\mu g/m^3$)	PEC (%)	IAQM Magnitude of Change
R1	1.5×10^{-4}	0.06%	0.011	4.5×10^{-4}	0.012	4.7%	Negligible
R2	1.5×10^{-4}	0.06%		5.3×10^{-4}	0.012	4.7%	Negligible
R3	1.6×10^{-4}	0.06%		6.0×10^{-4}	0.012	4.7%	Negligible
R4	5.7×10^{-5}	0.02%		9.2×10^{-4}	0.012	4.9%	Negligible
R5	1.8×10^{-4}	0.07%		9.7×10^{-4}	0.012	4.9%	Negligible
R6	1.5×10^{-4}	0.06%		0.002	0.013	5.4%	Negligible
R7	2.6×10^{-4}	0.10%		0.003	0.014	5.7%	Negligible
R8	3.4×10^{-4}	0.14%		0.002	0.013	5.3%	Negligible
R8B	3.4×10^{-4}	0.13%		0.002	0.013	5.4%	Negligible
R9	5.5×10^{-5}	0.02%		2.7×10^{-4}	0.012	4.6%	Negligible
R10	4.8×10^{-5}	0.02%		2.1×10^{-4}	0.011	4.6%	Negligible
R11	1.9×10^{-4}	0.08%		0.001	0.012	5.0%	Negligible
R12	5.8×10^{-5}	0.02%		2.9×10^{-4}	0.012	4.6%	Negligible
R13	6.5×10^{-5}	0.03%		3.6×10^{-4}	0.012	4.6%	Negligible
R14	5.5×10^{-5}	0.02%		3.4×10^{-4}	0.012	4.6%	Negligible
R15	1.7×10^{-4}	0.07%		9.2×10^{-4}	0.012	4.9%	Negligible
R16	1.5×10^{-4}	0.06%		4.7×10^{-4}	0.012	4.7%	Negligible
R16B	1.4×10^{-4}	0.06%		4.3×10^{-4}	0.012	4.7%	Negligible
R17	1.7×10^{-4}	0.07%		8.5×10^{-4}	0.012	4.8%	Negligible
R18A 1st	2.8×10^{-4}	0.11%		0.003	0.014	5.7%	Negligible
R18B 4th	2.8×10^{-4}	0.11%		0.003	0.014	5.7%	Negligible
R19A 1st	2.2×10^{-4}	0.09%		5.6×10^{-4}	0.012	4.7%	Negligible
R19B 6th	2.3×10^{-4}	0.09%		6.1×10^{-4}	0.012	4.7%	Negligible
R20A GF	2.7×10^{-4}	0.11%		0.003	0.014	5.7%	Negligible
R20B 5th	2.7×10^{-4}	0.11%		0.003	0.014	5.7%	Negligible
R21	5.0×10^{-5}	0.02%		2.5×10^{-4}	0.011	4.6%	Negligible
R22	2.5×10^{-4}	0.10%		0.003	0.014	5.5%	Negligible
R23	7.8×10^{-5}	0.03%		4.4×10^{-4}	0.012	4.7%	Negligible
R24	4.9×10^{-5}	0.02%		2.7×10^{-4}	0.012	4.6%	Negligible
R25	4.8×10^{-5}	0.02%		2.7×10^{-4}	0.012	4.6%	Negligible
R26	1.1×10^{-4}	0.04%		7.1×10^{-4}	0.012	4.8%	Negligible
R27	2.7×10^{-5}	0.01%		2.8×10^{-4}	0.012	4.6%	Negligible

Table C3.2.7 Predicted Annual Mean Manganese Concentrations

Sensitive Human Receptor ID	REP PC ($\mu g/m^3$)	PC (%)	Background (2016) ($\mu g/m^3$)	REP + RRRF + Crossness ($\mu g/m^3$)	Total PEC ($\mu g/m^3$)	PEC (%)	IAQM Magnitude of Change
R1	1.8×10^{-4}	0.12%	0.0054	3.9×10^{-4}	0.006	3.9%	Negligible
R2	1.8×10^{-4}	0.12%		4.6×10^{-4}	0.006	3.9%	Negligible
R3	1.9×10^{-4}	0.13%		5.6×10^{-4}	0.006	4.0%	Negligible
R4	6.8×10^{-5}	0.05%		8.8×10^{-4}	0.006	4.2%	Negligible
R5	2.2×10^{-4}	0.14%		8.7×10^{-4}	0.006	4.2%	Negligible
R6	1.8×10^{-4}	0.12%		0.002	0.008	5.0%	Negligible
R7	3.1×10^{-4}	0.21%		0.003	0.008	5.5%	Negligible
R8	4.1×10^{-4}	0.27%		0.002	0.007	4.9%	Negligible
R8B	4.0×10^{-4}	0.27%		0.002	0.007	5.0%	Negligible
R9	6.5×10^{-5}	0.04%		2.5×10^{-4}	0.006	3.8%	Negligible
R10	5.8×10^{-5}	0.04%		1.9×10^{-4}	0.006	3.7%	Negligible
R11	2.3×10^{-4}	0.15%		0.001	0.007	4.3%	Negligible
R12	7.0×10^{-5}	0.05%		2.6×10^{-4}	0.006	3.8%	Negligible
R13	7.8×10^{-5}	0.05%		3.4×10^{-4}	0.006	3.8%	Negligible
R14	6.5×10^{-5}	0.04%		3.2×10^{-4}	0.006	3.8%	Negligible
R15	2.1×10^{-4}	0.14%		8.2×10^{-4}	0.006	4.2%	Negligible
R16	1.8×10^{-4}	0.12%		4.2×10^{-4}	0.006	3.9%	Negligible
R16B	1.7×10^{-4}	0.11%		3.9×10^{-4}	0.006	3.9%	Negligible
R17	2.2×10^{-4}	0.13%		7.7×10^{-4}	0.006	4.1%	Negligible
R18A 1st	3.3×10^{-4}	0.22%		0.003	0.008	5.6%	Negligible
R18B 4th	3.3×10^{-4}	0.22%		0.003	0.008	5.6%	Negligible
R19A 1st	2.6×10^{-4}	0.18%		4.9×10^{-4}	0.006	3.9%	Negligible
R19B 6th	2.7×10^{-4}	0.18%		5.4×10^{-4}	0.006	4.0%	Negligible
R20A GF	3.3×10^{-4}	0.22%		0.003	0.008	5.6%	Negligible
R20B 5th	3.3×10^{-4}	0.22%		0.003	0.008	5.6%	Negligible
R21	5.9×10^{-5}	0.04%		2.3×10^{-4}	0.006	3.8%	Negligible
R22	2.9×10^{-4}	0.20%		0.002	0.008	5.3%	Negligible
R23	9.3×10^{-5}	0.06%		4.1×10^{-4}	0.006	3.9%	Negligible
R24	5.8×10^{-5}	0.04%		2.6×10^{-4}	0.006	3.8%	Negligible
R25	5.7×10^{-5}	0.04%		2.5×10^{-4}	0.006	3.8%	Negligible
R26	1.3×10^{-4}	0.09%		6.4×10^{-4}	0.006	4.0%	Negligible
R27	3.2×10^{-5}	0.02%		2.6×10^{-4}	0.006	3.8%	Negligible

Table C3.2.8 Predicted Annual Average Nickel Concentrations

Sensitive Human Receptor ID	REP PC (µg/m^3)	PC (%)	Background (2016) (µg/m^3)	REP + RRRF + Crossness (µg/m^3)	Total PEC (µg/m^3)	PEC (%)	IAQM Magnitude of Change
R1	6.6×10^{-4}	3.3%	8.8×10^{-4}	6.0×10^{-4}	0.0015	7.4%	Negligible
R2	6.7×10^{-4}	3.3%		8.3×10^{-4}	0.0017	8.6%	Negligible
R3	7.1×10^{-4}	3.6%		7.4×10^{-4}	0.0016	8.1%	Negligible
R4	2.0×10^{-4}	1.3%		0.0011	0.0020	9.8%	Negligible
R5	7.9×10^{-4}	4.0%		0.0013	0.0022	11.0%	Negligible
R6	6.5×10^{-4}	3.2%		0.0026	0.0035	17.5%	Negligible
R7	0.0011	5.7%		0.0037	0.0045	22.7%	Minor
R8	0.0015	7.5%		0.0029	0.0038	18.7%	Minor
R8B	0.0015	7.3%		0.0031	0.0040	19.8%	Minor
R9	2.4×10^{-4}	1.2%		3.7×10^{-4}	0.0013	6.3%	Negligible
R10	2.1×10^{-4}	1.1%		2.9×10^{-4}	0.0012	5.8%	Negligible
R11	8.5×10^{-4}	4.3%		0.0016	0.0025	12.4%	Negligible
R12	2.6×10^{-4}	1.3%		3.9×10^{-4}	0.0013	6.4%	Negligible
R13	2.8×10^{-4}	1.4%		4.7×10^{-4}	0.0014	6.8%	Negligible
R14	2.4×10^{-4}	1.2%		4.6×10^{-4}	0.0014	6.7%	Negligible
R15	7.6×10^{-4}	3.8%		0.0012	0.0021	10.6%	Negligible
R16	6.6×10^{-4}	3.3%		6.0×10^{-4}	0.0015	7.4%	Negligible
R16B	6.1×10^{-4}	3.0%		5.5×10^{-4}	0.0014	7.2%	Negligible
R17	7.4×10^{-4}	3.7%		0.0012	0.0021	10.3%	Negligible
R18A 1st	0.0012	6.1%		0.0038	0.0017	23.4%	Minor
R18B 4th	0.0012	6.1%		0.0038	0.0047	23.5%	Minor
R19A 1st	9.7×10^{-4}	4.9%		0.0010	0.0019	9.5%	Negligible
R19B 6th	9.9×10^{-4}	4.9%		0.0011	0.0020	9.8%	Negligible
R20A GF	0.0012	6.0%		0.0038	0.0047	23.5%	Minor
R20B 5th	0.0012	6.0%		0.0038	0.0047	23.6%	Minor
R21	2.2×10^{-4}	1.1%		3.3×10^{-4}	0.0012	6.1%	Negligible
R22	0.0011	5.4%		0.003	0.0042	20.8%	Negligible
R23	3.4×10^{-4}	1.7%		5.7×10^{-4}	0.0015	7.3%	Negligible
R24	2.1×10^{-4}	1.1%		3.5×10^{-4}	0.0012	6.2%	Negligible
R25	2.1×10^{-4}	1.1%		3.5×10^{-4}	0.0012	6.1%	Negligible
R26	4.8×10^{-4}	2.4%		9.2×10^{-4}	0.0018	9.0%	Negligible
R27	1.1×10^{-4}	0.6%		3.5×10^{-4}	0.0012	6.1%	Negligible

Table C3.2.9 Predicted Annual Average Nitrogen Dioxide Concentrations

Sensitive Human Receptor ID	REP PC[1] (µg/m^3)	PC (%)	Baseline (inc. Traffic) (µg/m^3)	REP + RRRF + Crossness (µg/m^3)	Total PEC (µg/m^3)	PEC (%)	IAQM Magnitude of Change
R1	0.25	0.63%	19.8	0.27	20.1	50.3%	Negligible
R2	0.30	0.74%	23.2	0.38	23.6	58.9%	Negligible
R3	0.27	0.68%	21.1	0.28	21.4	53.5%	Negligible
R4	0.10	0.24%	21.2	0.37	21.6	53.9%	Negligible
R5	0.30	0.75%	22.1	0.56	22.6	56.6%	Negligible
R6	0.25	0.62%	18.5	0.90	19.4	48.6%	Negligible
R7	0.44	1.09%	29.6	1.32	31.0	77.4%	Negligible
R8	0.57	1.42%	27.8	1.21	29.0	72.6%	Negligible
R8B	0.56	1.40%	30.3	1.29	31.6	79.1%	Negligible
R9	0.09	0.23%	21.1	0.15	21.2	53.1%	Negligible
R10	0.08	0.20%	19.3	0.12	19.5	48.7%	Negligible
R11	0.32	0.81%	31.2	0.66	31.8	79.5%	Negligible
R12	0.10	0.24%	25.7	0.16	25.9	64.7%	Negligible
R13	0.11	0.27%	29.3	0.18	29.5	73.7%	Negligible
R14	0.09	0.23%	31.6	0.18	31.7	79.4%	Negligible
R15	0.29	0.72%	30.2	0.52	30.7	76.8%	Negligible
R16	0.25	0.63%	19.8	0.25	20.0	50.1%	Negligible
R16B	0.23	0.58%	20.7	0.23	20.9	52.3%	Negligible
R17	0.28	0.71%	22.1	0.50	22.6	56.4%	Negligible
R18A 1st	0.47	1.18%	24.4	1.38	25.8	64.6%	Negligible
R18B 4th	0.46	1.16%	22.1	1.38	23.5	58.7%	Negligible
R19A 1st	0.50	1.25%	24.0	0.46	24.6	61.5%	Negligible
R19B 6th	0.41	1.02%	22.0	0.48	22.5	56.2%	Negligible
R20A GF	0.47	1.17%	23.7	1.38	25.1	62.8%	Negligible
R20B 5th	0.46	1.14%	21.8	1.38	23.2	57.9%	Negligible
R21	0.08	0.21%	34.7	0.13	34.8	87.1%	Negligible
R22	0.41	1.03%	23.5	1.20	24.7	61.6%	Negligible
R23	0.22	0.55%	25.4	0.22	25.7	64.2%	Negligible
R24	0.28	0.70%	29.5	0.13	29.8	74.6%	Negligible
R25	0.24	0.60%	27.1	0.13	27.4	68.6%	Negligible
R26	0.18	0.46%	20.9	0.38	21.3	53.2%	Negligible
R27	0.17	0.44%	26.9	0.13	27.2	68.0%	Negligible

[1] Including contribution of additional traffic movements associated with REP

Table C3.2.10 Predicted Annual Mean PM_{10} Concentrations

Sensitive Human Receptor ID	REP PC[2] (µg/m^3)	PC (%)	Baseline (inc. Traffic (µg/m^3)	REP + RRRF + Crossness (µg/m^3)	Total PEC (µg/m^3)	PEC (%)	IAQM Magnitude of Change
R1	0.02	0.04%	14.9	0.02	14.9	37.2%	Negligible
R2	0.03	0.07%	16.0	0.03	16.0	40.0%	Negligible
R3	0.02	0.04%	15.7	0.02	15.7	39.3%	Negligible
R4	0.01	0.01%	16.4	0.03	16.4	41.1%	Negligible
R5	0.02	0.05%	14.7	0.04	14.8	36.9%	Negligible
R6	0.02	0.04%	15.3	0.06	15.4	38.4%	Negligible
R7	0.03	0.07%	19.2	0.09	19.3	48.3%	Negligible
R8	0.03	0.09%	17.6	0.09	17.7	44.3%	Negligible
R8B	0.03	0.08%	19.1	0.09	19.2	48.0%	Negligible
R9	0.01	0.01%	15.5	0.01	15.5	38.8%	Negligible
R10	0.00	0.01%	15.4	0.01	15.4	38.5%	Negligible
R11	0.02	0.05%	19.6	0.05	19.6	49.0%	Negligible
R12	0.01	0.01%	17.5	0.01	17.5	43.8%	Negligible
R13	0.01	0.02%	17.6	0.01	17.6	44.0%	Negligible
R14	0.01	0.01%	19.9	0.01	19.9	49.7%	Negligible
R15	0.02	0.04%	18.5	0.04	18.5	46.3%	Negligible
R16	0.02	0.04%	14.8	0.02	14.9	37.2%	Negligible
R16B	0.01	0.04%	15.3	0.02	15.3	38.3%	Negligible
R17	0.02	0.04%	14.7	0.04	14.8	36.9%	Negligible
R18A 1st	0.03	0.07%	16.6	0.10	16.7	41.6%	Negligible
R18B 4th	0.03	0.07%	15.4	0.10	15.5	38.8%	Negligible
R19A 1st	0.11	0.28%	16.6	0.03	16.8	41.9%	Negligible
R19B 6th	0.03	0.09%	15.3	0.03	15.4	38.4%	Negligible
R20A GF	0.03	0.07%	16.2	0.10	16.3	40.8%	Negligible
R20B 5th	0.03	0.07%	15.3	0.10	15.3	38.4%	Negligible
R21	0.01	0.01%	24.5	0.01	24.5	61.2%	Negligible
R22	0.02	0.06%	16.1	0.09	16.2	40.5%	Negligible
R23	0.10	0.25%	19.2	0.02	19.3	48.3%	Negligible
R24	0.14	0.35%	21.5	0.01	21.7	54.1%	Negligible
R25	0.10	0.26%	19.9	0.01	20.0	49.9%	Negligible
R26	0.01	0.03%	15.1	0.03	15.2	37.9%	Negligible
R27	0.07	0.17%	25.0	0.01	25.1	62.7%	Negligible

[2] Including contribution of additional traffic movements associated with REP

Table C3.2.11 Predicted Annual Mean $PM_{2.5}$ Concentrations

Sensitive Human Receptor ID	REP PC[3] (µg/m³)	PC (%)	Baseline (inc. Traffic) (µg/m³)	REP + RRRF + Crossness (µg/m³)	Total PEC (µg/m³)	PEC (%)	IAQM Magnitude of Change
R1	0.02	0.04%	9.6	0.02	9.6	47.94%	Negligible
R2	0.02	0.06%	10.3	0.03	10.3	51.43%	Negligible
R3	0.02	0.04%	10.0	0.02	10.0	49.92%	Negligible
R4	0.01	0.01%	10.5	0.03	10.5	52.55%	Negligible
R5	0.02	0.05%	9.5	0.04	9.6	47.78%	Negligible
R6	0.01	0.04%	9.9	0.06	9.9	49.70%	Negligible
R7	0.03	0.07%	12.0	0.09	12.1	60.62%	Negligible
R8	0.03	0.09%	11.2	0.09	11.3	56.26%	Negligible
R8B	0.03	0.08%	12.0	0.09	12.1	60.32%	Negligible
R9	0.01	0.01%	9.9	0.01	9.9	49.61%	Negligible
R10	0.00	0.01%	9.8	0.01	9.8	49.19%	Negligible
R11	0.02	0.05%	12.2	0.05	12.3	61.35%	Negligible
R12	0.01	0.01%	11.0	0.01	11.0	54.89%	Negligible
R13	0.01	0.02%	11.1	0.01	11.1	55.55%	Negligible
R14	0.01	0.01%	12.3	0.01	12.3	61.59%	Negligible
R15	0.02	0.04%	11.6	0.04	11.7	58.42%	Negligible
R16	0.02	0.04%	9.6	0.02	9.6	47.90%	Negligible
R16B	0.01	0.04%	9.8	0.02	9.8	49.20%	Negligible
R17	0.02	0.04%	9.5	0.04	9.6	47.75%	Negligible
R18A 1st	0.03	0.07%	10.6	0.10	10.7	53.30%	Negligible
R18B 4th	0.03	0.07%	9.9	0.10	10.0	50.12%	Negligible
R19A 1st	0.07	0.17%	10.6	0.03	10.7	53.45%	Negligible
R19B 6th	0.03	0.07%	9.9	0.03	9.9	49.64%	Negligible
R20A GF	0.03	0.07%	10.4	0.10	10.5	52.32%	Negligible
R20B 5th	0.03	0.07%	9.8	0.10	9.9	49.70%	Negligible
R21	0.00	0.01%	14.7	0.01	14.7	73.60%	Negligible
R22	0.02	0.06%	10.3	0.09	10.4	51.97%	Negligible
R23	0.06	0.14%	12.0	0.02	12.1	60.27%	Negligible
R24	0.08	0.19%	13.2	0.01	13.3	66.48%	Negligible
R25	0.06	0.14%	12.3	0.01	12.4	61.90%	Negligible
R26	0.01	0.03%	9.7	0.03	9.7	48.59%	Negligible
R27	0.04	0.10%	15.8	0.01	15.9	79.44%	Negligible

[3] Including contribution of additional traffic movements associated with REP

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C3.3 Impact of ERF Emissions – Terrestrial Biodiversity Receptors

Table C3.3.1 Predicted Annual Average NO_x Process Contributions and Predicted Environmental Concentrations

Site Name	Background µg/m³	PC µg/m³	PC %	PEC µg/m³	PEC %
Crossness LNR	37.5	0.48	**1.6**%	38.0	127%
Lesnes Abbey Wood	31.4	0.26	0.9%	31.7	106%
Inner Thames Marshes/ Rainham Marshes	40.9	0.83	**2.8**%	41.8	139%
Oxleas Woodlands	33.8	0.07	0.2%	33.9	113%
Epping Forest	39.2	0.03	0.1%	39.2	131%
Epping Forest	45.4	0.02	0.1%	45.4	151%
Ingrebourne Marshes	33.6	0.64	**2.1**%	34.2	114%
Thorndon Park	21.2	0.07	0.2%	21.3	70.9%
Hainault Forest	22.9	0.02	0.1%	22.9	76.3%
Curtismill Green	29.4	0.03	0.1%	29.4	98.0%
Grays Thurrock Chalk Pit	36.9	0.04	0.1%	36.9	123%
Hangman's Wood & Deneholes	28.9	0.03	0.1%	28.9	96.5%
Darenth Wood	33.4	0.04	0.1%	33.5	112%
Farningham Wood	33.6	0.03	0.1%	33.6	112%

Table C3.3.2 Predicted Daily Mean NO_x Process Contributions and Predicted Environmental Concentrations

Site Name	Background µg/m³	PC µg/m³	PC %	PEC µg/m³	PEC %
Crossness LNR	37.5	15.8	21.1%	53.3	71.1
Lesnes Abbey wood	31.4	6.6	8.8%	38.0	50.7
Inner Thames Marshes/ Rainham Marshes	40.9	5.2	7.0%	46.1	61.5
Oxleas Woodlands	33.8	1.1	1.5%	34.9	46.5
Epping Forest	39.2	0.7	1.0%	39.9	53.2
Epping Forest	45.4	1.5	2.0%	46.9	62.5
Ingrebourne Marshes	33.6	3.1	4.1%	36.7	48.9
Thorndon Park	21.2	0.8	1.0%	22.0	30.6
Hainault Forest	22.9	0.4	0.6%	23.3	31.1
Curtismill Green	29.4	0.5	0.6%	29.9	39.9
Grays Thurrock Chalk Pit	36.9	0.5	0.7%	37.4	49.9
Hangman's Wood & Deneholes	28.9	0.3	0.4%	39.2	52.3
Darenth Wood	33.4	0.7	1.0%	34.1	41.4
Farningham Wood	33.6	0.7	0.9%	34.3	45.7

Table C3.3.3 Predicted Annual Mean SO_2 Process Contributions and Predicted Environmental Concentrations

Site Name	Background µg/m³	PC µg/m³	PC %	PEC µg/m³	PEC %
Crossness LNR	1.6	0.12	1.2%	1.7	17.2%
Lesnes Abbey wood	1.6	0.06	0.64%	1.7	16.6%
Inner Thames Marshes/ Rainham Marshes	2.3	0.21	2.08%	2.5	24.7%
Oxleas Woodlands	1.5	0.02	0.18%	1.5	15.4%
Epping Forest	0.4	0.01	0.07%	0.4	4.0%
Epping Forest	1.7	0.01	0.06%	1.7	17.3%
Ingrebourne Marshes	2.3	0.16	1.60%	2.4	24.2%
Thorndon Park	1.5	0.02	0.17%	1.6	15.5%
Hainault Forest	2.8	0.01	0.06%	2.8	27.8%
Curtismill Green	0.3	0.01	0.07%	0.3	3.5%
Grays Thurrock Chalk Pit	3.5	0.01	0.09%	3.5	35.1%
Hangman's Wood & Deneholes	3.5	0.06	0.07%	3.5	35.1%
Darenth Wood	2.0	0.01	0.10%	2.0	20.3%
Farningham Wood	2.0	0.01	0.09%	2.0	20.0%

Table C3.3.4 Predicted Annual Mean Ammonia Process Contributions and Predicted Environmental Concentrations

Site Name	Background µg/m^3	PC µg/m^3	PC %	PEC µg/m^3	PEC %
Crossness LNR	2.0	0.04	1.4%	2.1	69.0%
Lesnes Abbey wood	2.0	0.02	0.7%	2.1	68.4%
Inner Thames Marshes/ Rainham Marshes	2.4	0.07	2.3%	2.4	81.3%
Oxleas Woodlands	2.1	0.01	0.2%	2.1	69.9%
Epping Forest	1.6	2.5×10^{-3}	0.1%	1.6	53.4%
Epping Forest	2.8	2.0×10^{-3}	0.1%	2.8	94.1%
Ingrebourne Marshes	2.4	0.05	1.8%	2.4	80.8%
Thorndon Park	1.7	5.7×10^{-3}	0.2%	1.7	56.5%
Hainault Forest	1.8	0.01	0.1%	1.8	59.7%
Curtismill Green	1.8	2.5×10^{-3}	0.1%	1.8	59.4%
Grays Thurrock Chalk Pit	1.5	3.0×10^{-3}	0.1%	1.5	49.8%
Hangman's Wood & Deneholes	1.5	2.2×10^{-3}	0.1%	1.5	49.7%
Darenth Wood	1.6	3.4×10^{-3}	0.1%	1.6	54.1%
Farningham Wood	1.7	2.91×10^{-3}	0.1%	1.7	56.8%

Table C3.3.5 Predicted Annual Mean HF Process Contributions and Predicted Environmental Concentrations

Site Name	Background µg/m^3	PC µg/m^3	PC %	PEC µg/m^3	PEC %
Crossness LNR	1.0	0.13	2.6%	1.1	22.6%
Lesnes Abbey wood		0.05	1.1%	1.1	21.1%
Inner Thames Marshes/ Rainham Marshes		0.04	0.9%	1.0	20.9%
Oxleas Woodlands		0.01	0.2%	1.0	20.2%
Epping Forest		0.01	0.1%	1.0	20.1%
Epping Forest		0.01	0.2%	1.0	20.2%
Ingrebourne Marshes		0.03	0.5%	1.0	20.5%
Thorndon Park		0.01	0.1%	1.0	20.1%
Hainault Forest		3.5×10^{-3}	0.1%	1.0	20.1%
Curtismill Green		3.8×10^{-3}	0.1%	1.0	20.1%
Grays Thurrock Chalk Pit		4.5×10^{-3}	0.1%	1.0	20.1%
Hangman's Wood & Deneholes		$2.3x\ 10^{-3}$	0.1 %	1.0	20.1%
Darenth Wood		0.01	0.1%	1.0	20.1%
Farningham Wood		0.01	0.1%	1.0	20.1%

Table C3.3.6 Predicted Nitrogen Deposition

Site Name	Lower Critical Load (kgN/ha/yr)	Background (kgN/ha/yr)	PC (kgN/ha/yr)	PC %	PEC (kgN/ha/yr)	PEC %
Crossness LNR	20	16.4	0.05	0.24%	16.4	82%
Lesnes Abbey wood	10	28.4	0.05	0.52%	28.5	285%
Inner Thames Marshes / Rainham Marshes	20	16.9	0.08	0.42%	17.0	85%
Oxleas Woodlands	10	28.3	0.01	0.15%	28.3	283%
Epping Forest	8	18.3	3.0×10^{-3}	0.04%	18.3	224%
Epping Forest	10	19.7	4.8×10^{-3}	0.05%	19.7	344%
Ingrebourne Marshes	15	16.9	0.06	0.43%	17.0	113%
Thorndon Park	10	27.6	0.01	0.14%	27.6	276%
Hainault Forest	10	26.5	4.5×10^{-3}	0.05%	26.5	265%
Curtismill Green	20	16.4	3.0×10^{-3}	0.01%	16.4	82%
Grays Thurrock Chalk Pit	10	24.2	0.01	0.07%	24.2	100%
Hangman's Wood & Deneholes	10	24.2	0.01	0.05%	24.2	242%
Darenth Wood	10	26.3	0.01	0.08%	26.3	263%
Farningham Wood	10	28.7	0.01	0.07%	28.7	287%

Table C3.3.7 Predicted Acid Deposition

Site Name	Critical Load (keq/ha/yr)	Background (keq/ha/yr)	PC (keq/ha/yr)	PC %	PEC (keq/ha/yr)	PEC %
Crossness LNR	5.071	1.35	0.018	0.4%	1.37	34.2%
Lesnes Abbey wood	1.034	2.24	0.019	1.8%	2.26	302%
Inner Thames Marshes / Rainham Marshes	5.071	1.4	0.031	0.6%	1.43	35.8%
Oxleas Woodlands	2.721	2.22	0.005	0.2%	2.23	94.1%
Epping Forest SSSI	1.09	1.45	0.001	0.1%	1.45	170%
Epping Forest SAC	1.73	2.67	0.002	0.1%	2.67	181%
Ingrebourne Marshes	2.065	2.16	0.005	0.2%	2.16	127%
Thorndon Park	2.908	2.07	0.002	0.1%	2.07	81.2%
Hainault Forest	2.078	1.32	0.001	0.1%	1.32	80.6%
Curtismill Green	1.739	1.98	0.003	0.2%	1.98	124.2%
Grays Thurrock Chalk Pit	1.739	1.98	0.002	0.1%	1.98	124.1%
Hangman's Wood & Deneholes	8.57	2.1	0.003	0.0%	2.10	25.0%
Darenth Wood	1.511	2.28	0.003	0.2%	2.28	167%