

Appendix 9E

Modelled Receptors and Backgrounds

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Revision 1

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1. Modelled Human Receptors

1.1.1 **Table 9E 1.1** shows the locations of the modelled receptors and type. All receptors were modelled at a height of 1.5m following LAQM.TG(22) guidance and were chosen as they are highly sensitive. This ensures that the approach taken for this assessment gives conservative results. Receptors are displayed in **Figure 9.3**.

Table 9E 1.1 Modelled human receptors and locations

Receptor ID	Location	X	Y
R1	Stannard Road	375114	398503
R2	M60/ Carwell Road	375148	398212
R3	M60/ Wilfred Road	375335	397575
R4	M60/ Benbecula Way	376694	396314
R4	M60 Manchester Outer Ring Road/ Iona way	377168	396109
R6	M60 Manchester Outer Ring Road/ Dorchester Avenue	377569	395419
R7	M60 Manchester Outer Ring Road/ Highfield Primary School, Bridgenorth Avenue	377570	394639
R8	M60 Manchester Outer Ring Road/ Riding CL	380717	391811
R9	M60 Manchester Outer Ring Road/ Marsworth CL	381218	391066
R10	M60 Manchester Outer Ring Road/ Stortford Dive	381617	390876
R11	M56 Princess Pkwy/ Yewtree Lane	382331	390493

Receptor ID	Location	X	Y
R12	A5103 N Cheshire Motorway/ Beechpark Avenue	382272	389300
R13	M56 N Cheshire Motorway/ Shawbury Road	381699	387646
R14	A556/ Chester Road	374024	385327
R15	M56 N Cheshire Motorway/ Reddy Lane	372536	385284
R16	M56 N Cheshire Motorway/ West Lane	370334	385247
R17	M56 N Cheshire Motorway/	365738	383781
R18	Arley Road	364487	382969
R19	Arley Road	364093	383614
R20	Arley Road	364066	383678
R21	A559 Northwich Road	362217	381841
R22	A559 Northwich Road	362247	381730
R23	A49 Tarporley Road	361552	381561
R24	A49 Tarporley Road	361193	380821
R25	A49 Tarporley Road	361106	379833
R26	A49 Warrington Road	360677	377212
R27	A49/ NCR 5	360123	375712
R28	A49/ NCR 5	353566	378918
R29	Clifton Road	353420	379171

Receptor ID	Location	X	Y
R30	A56 Chester Road	358675	383917
R31	A56 Chester New Road	359640	385125
R32	A56 Chester New Road/ Lychgate	359696	385235
R33	A5060	360431	386012
R34	A5060/ Morley Road	360403	386207
R35	A5060/ Weir Street	360360	386319
R36	A5060/ Camberwell Dr	360371	386349
R37	A5060 Chester Road	360359	386638
R38	M62/ Union Bank Road	352406	390312
R39	M62/ Elm Road	360496	391877
R40	M62/ Cross Lane Street	365023	392973
R41	M6/ Manchester Road	366107	389189
R42	M6/ Weaste Lane	366313	386656
R43	M6/ Intack Lane	367001	383414
R44	M6/ Moss Lane	367695	382556
R45	A556	372236	379113
R46	A556	371494	376874
R47	A556	370634	375732
R48	Warburton Lane	371011	389565

Receptor ID	Location	X	Y
R49	Warburton Lane/ Top Park CL	371217	390252
R50	Warburton Lane	371470	390815
R51	Warburton Lane/ Carmichael CL	371469	391095
R52	A6144/ Manchester Road	371916	391604
R53	A6144/ Manchester Road	374008	392814
R54	A6144/ Carrington Lane	375556	392928

1.1.2 Table 9E.1.2 shows the background concentrations used in this assessment for the modelled baseline (2022) and peak construction year of 2028.

Table 9E.1.2 Background concentrations for modelled human receptors

Receptor ID	2022 NO ₂	2022 PM ₁₀	2022 PM _{2.5}	2028 NO ₂	2028 PM ₁₀	2028 PM _{2.5}
R1	20.26	13.31	8.71	15.48	12.96	8.43
R2	20.26	13.31	8.71	15.48	12.96	8.43
R3	18.77	13.07	8.51	14.55	12.72	8.23
R4	20.77	13.94	9.08	17.02	13.60	8.80
R4	17.93	13.33	8.50	14.48	12.98	8.22
R6	18.31	13.65	8.92	14.48	13.29	8.64
R7	18.08	13.36	8.82	14.25	13.00	8.54
R8	16.60	12.77	8.57	13.13	12.43	8.30
R9	15.25	12.15	7.92	12.09	11.82	7.66
R10	16.28	12.30	8.17	12.87	11.95	7.91
R11	19.43	12.90	8.46	14.90	12.56	8.20
R12	19.32	13.14	8.57	15.15	12.80	8.31

Receptor ID	2022 NO ₂	2022 PM ₁₀	2022 PM _{2.5}	2028 NO ₂	2028 PM ₁₀	2028 PM _{2.5}
R13	19.54	13.12	8.54	15.30	12.78	8.27
R14	21.31	12.39	7.80	15.26	12.04	7.51
R15	13.20	11.52	7.20	10.10	11.18	6.93
R16	13.50	11.37	7.20	10.33	11.03	6.93
R17	14.55	12.29	7.53	10.74	11.94	7.24
R18	9.28	9.95	6.44	7.44	9.61	6.17
R19	14.12	11.96	7.48	10.54	11.61	7.19
R20	14.12	11.96	7.48	10.54	11.61	7.19
R21	8.87	10.17	6.50	7.19	9.84	6.23
R22	8.87	10.17	6.50	7.19	9.84	6.23
R23	9.40	10.61	6.70	7.55	10.27	6.43
R24	8.73	10.33	6.58	7.18	9.99	6.30
R25	8.13	10.42	6.56	6.78	10.08	6.29
R26	8.20	11.09	6.72	6.88	10.75	6.45
R27	8.19	10.84	6.63	7.03	10.50	6.36
R28	11.07	10.73	6.93	9.10	10.37	6.64
R29	15.81	12.68	8.06	12.20	12.31	7.76
R30	11.43	10.85	7.05	9.45	10.50	6.77
R31	10.65	10.95	7.01	9.08	10.61	6.73
R32	10.65	10.95	7.01	9.08	10.61	6.73
R33	12.83	11.22	7.63	10.90	10.85	7.34
R34	12.83	11.22	7.63	10.90	10.85	7.34
R35	12.83	11.22	7.63	10.90	10.85	7.34
R36	12.83	11.22	7.63	10.90	10.85	7.34
R37	12.83	11.22	7.63	10.90	10.85	7.34
R38	15.53	13.82	8.44	11.96	13.46	8.15

Receptor ID	2022 NO ₂	2022 PM ₁₀	2022 PM _{2.5}	2028 NO ₂	2028 PM ₁₀	2028 PM _{2.5}
R39	19.30	13.54	8.82	14.81	13.17	8.53
R40	15.88	11.76	7.66	12.87	11.39	7.36
R41	15.32	13.09	8.03	11.72	12.74	7.74
R42	16.20	12.75	7.81	11.94	12.41	7.52
R43	13.18	12.69	7.65	9.94	12.34	7.36
R44	13.41	12.19	7.49	10.01	11.84	7.20
R45	15.38	12.61	7.64	11.22	12.26	7.35
R46	8.96	10.51	6.61	7.36	10.17	6.34
R47	9.10	10.76	6.69	7.53	10.41	6.41
R48	9.86	11.00	6.75	8.24	10.67	6.49
R49	10.81	11.17	7.02	8.99	10.83	6.75
R50	10.81	11.17	7.02	8.99	10.83	6.75
R51	12.38	11.61	7.64	10.23	11.26	7.38
R52	12.38	11.61	7.64	10.23	11.26	7.38
R53	13.70	10.99	7.02	11.78	10.67	6.76
R54	11.65	11.11	7.06	9.81	10.78	6.80

2. Ecological Receptors

2.1.1 **Table 9E 2.1** shows the ecological receptors modelled in this assessment. The X, Y coordinates shown in the table are the closest coordinates to the road and transects of 10m were modelled from this point up to 200m.

Table 9E 2.1 Modelled ecological receptors and locations

Receptor ID	Location	X	Y	2022 NO _x background (µg/m ³)
Eco1	Manchester Mosses	368306	393443	22.13
Eco7	Round and Rinks Wood	371709	377296	11.55
Eco5	Daresbury Fires	357557	382371	18.00
Eco3	Woolston Eyes	366401	388634	23.49
Eco8	Tabley Mere	371865	377343	11.55
Eco22	Winnington Wood	370218	375460	11.82
Eco9	The Howlers	368898	385067	15.23
Eco13	Hancocks Bank	375412	384710	24.19
Eco19	Round's Wood	382370	389264	27.38
Eco17	Davenport Green Wood	380591	386002	28.76
Eco16	Hennessley Bank	379550	384552	22.72
Eco20	Black Field Wood	382315	389492	27.38
Eco14	Ryecroft Covert	375994	384572	24.19
Eco10	Alder and Hey Woods	368940	384997	18.27

Receptor ID	Location	X	Y	2022 NO _x background (µg/m ³)
Eco12	Hancock Bank	375330	384806	24.19
Eco15	Warburton Wood	379276	384625	22.72
Eco18	Black Carr Wood	382097	388962	29.45
Eco2	Woolston Eyes	366358	388622	23.49
Eco21	Wythenshawe Park	382283	389696	27.38
Eco23	Winnington Wood	370194	375504	11.82
Eco4	Outer Wood	358784	383845	15.14
Eco6	Round and Rinks Wood	371721	377356	11.55
Eco24	Leonards and Smoker Woods	370928	376111	10.56

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