



## Appendix A55.1 – Wider Scale Air Quality Impacts

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**55.1.1 Link-Specific STAG Assessment Results**

Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)																With Proposed Scheme (2011)																Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better	Number of Properties Worse	Number of Properties No Change									
					µg/m <sup>3</sup> 20 m from Road Centre				µg/m <sup>3</sup> 70 m from Road Centre				µg/m <sup>3</sup> 115 m from Road Centre				µg/m <sup>3</sup> 175 m from Road Centre				NO <sub>2</sub> Conc Multiplied by Number of Properties				PM <sub>10</sub> Conc Multiplied by Number of Properties				µg/m <sup>3</sup> 20 m from Road Centre				µg/m <sup>3</sup> 70 m from Road Centre															µg/m <sup>3</sup> 115 m from Road Centre				µg/m <sup>3</sup> 175 m from Road Centre				NO <sub>2</sub> Conc Multiplied by Number of Properties
	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	0-50	50-100	100-150	150-200	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	0-50	50-100	100-150	150-200	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	PM <sub>10</sub>	NO <sub>2</sub>												
1	24	20	42	6	2	10	2	10	2	10	2	10	2	10	59	44	89	13	238	197	414	59	2	10	2	10	2	10	2	10	2	10	2	10	53	42	87	12	237	197	413	59	204	908	195	906	24	18	42	6	90	90	0	0	0	0
2	11	4	4	4	3	10	2	10	2	10	2	10	2	10	28	8	7	7	108	39	39	39	3	10	2	10	2	10	2	10	2	10	28	8	7	7	108	39	39	39	51	225	51	225	11	4	3	4	0	0	22	22	0	0		
3	69	96	85	63	4	10	3	10	2	10	2	10	2	10	247	249	196	139	706	960	844	624	4	10	3	10	2	10	2	10	2	10	271	260	199	140	713	963	845	625	831	3135	870	3145	69	95	85	63	0	0	312	312	0	0		
4	40	7	3	8	4	10	3	10	2	10	2	10	2	10	150	19	7	19	418	72	31	81	4	11	3	10	3	10	2	10	163	20	8	19	421	72	31	81	196	602	210	604	35	7	2	4	0	0	48	48	0	0				
5	4	0	1	4	3	10	2	10	2	10	2	10	2	10	12	0	2	8	41	0	10	40	3	10	2	10	2	10	2	10	13	0	2	8	41	0	10	40	22	91	23	91	2	0	1	4	0	0	7	7	0	0				
6	8	0	0	0	2	10	2	10	2	10	2	10	2	10	20	0	0	0	80	0	0	0	2	10	2	10	2	10	2	10	17	0	0	0	80	0	0	0	20	80	17	80	6	0	0	0	6	6	0	0	0	0				
7	18	5	1	2	2	10	2	10	2	10	2	10	2	10	41	10	2	4	177	49	10	20	2	10	2	10	2	10	2	10	37	10	2	4	176	49	10	20	58	255	53	254	18	5	1	2	26	26	0	0	0	0				
8	21	4	8	4	3	10	2	10	2	10	2	10	2	10	71	9	16	8	216	40	80	40	2	10	2	10	2	10	2	10	41	8	15	8	211	40	80	40	104	377	71	372	18	0	4	2	24	24	0	0	0	0				
9	12	5	7	4	2	10	2	10	2	10	2	10	2	10	27	10	14	8	121	50	70	40	2	10	2	10	2	10	2	10	24	10	13	8	121	50	70	40	59	282	55	281	8	4	3	2	17	17	0	0	0	0				
10	8	5	6	3	4	10	2	10	2	10	2	10	2	10	30	12	13	6	83	51	60	30	2	10	2	10	2	10	2	10	17	10	11	6	81	50	60	30	60	224	43	221	7	3	6	3	19	19	0	0	0	0				
11	12	7	9	4	9	11	5	10	4	10	3	10	109	35	34	13	134	72	90	40	9	11	5	10	4	10	3	10	109	36	34	13	134	72	90	40	192	335	192	335	9	4	6	2	0	0	21	21	0	0						
12	30	4	3	1	3	10	2	10	2	10	2	10	97	10	7	2	308	40	30	10	3	10	2	10	2	10	2	10	91	10	7	2	306	40	30	10	116	388	109	387	30	2	2	1	35	35	0	0	0	0						
13	2	1	2	0	5	11	4	11	3	11	3	11	11	4	6	0	22	11	22	0	4	11	3	11	3	11	3	11	7	3	6	0	22	11	21	0	21	55	17	54	0	0	0	0	0	0	0	0	0	0						
14	26	8	9	4	4	11	3	11	2	10	2	10	98	20	20	8	279	84	94	42	2	10	2	10	2	10	2	10	56	16	18	8	272	84	94	42	147	499	98	491	24	8	9	4	45	45	0	0	0	0						
15	11	4	2	1	5	11	4	11	3	11	3	11	54	15	7	3	123	44	22	11	3	11	3	11	3	11	3	11	37	13	6	3	121	44	22	11	79	200	60	197	10	1	0	0	11	11	0	0	0	0						
16	4	13	5	4	6	12	4	11	4	11	3	11	25	54	18	13	46	144	55	44	7	12	4	11	4	11	3	11	27	57	18	13	46	145	55	44	110	289	115	290	2	8	2	0	0	0	12	12	0	0						
17	3	26	32	27	8	12	5	11	4	11	3	11	25	126	121	93	36	294	354	296	8	12	5	11	4	11	3	11	23	122	119	92	36	293	353	296	364	980	357	978	1	1	5	1	8	8	0	0	0	0						
18	1	1	0	0	7	12	5	11	4	11	3	11	7	5	0	0	12	11	0	0	8	12	5	11	4	11	3	11	8	5	0	0	12	11	0	0	12	23	12	23	1	0	0	0	0	0	1	1	0	0						
19	156	157	143	119	4	11	3	11	3	11	3	11	639	548	474	388	1760	1753	1592	1324	4	11	3	11	3	11	3	11	631	546	474	388	1758	1753	1592	1324	2050	6430	2039	6427	155	154	137	113	559	559	0	0	0	0						
20	7	16	14	17	8	12	5	11	4	11	3	11	54	75	52	58	85	183	157	190	7	12	5	11	4	11	3	11	51	72	51	57	85	182	157	190	238	615	232	614	0	1	0	5	6	6	0	0	0	0						
21	1	1	0	0	5	11	3	10	3	10	2	10	5	3	0	0	11	10	0	0	4	11	3	10	3	10	2	10	4	3	0	0	11	10	0	0	9	21	7	21	0	0	0	0	0	0	0	0	0	0	0					
22	17	1	8	1	6	11	4	10	3	10	3	10	96	4	23	3	184	10	82	10	4	11	3	10	3	10	3	10	72	3	22	3	180	10	82	10	125	287	99	283	14	1	6	1	22	22	0	0	0	0						
23	28	26	27	4	3	10	3	10	3	10	3	10	88	71	70	10	290	267	277	41	3	10	3	10	3	10	3	10	75	67	69	10	287	266	276	41	239	875	221	871	26	23	23	1	73	73	0	0	0	0						
24	7	0	4	0	6	11	4	11	4	11	3	11	44	0	15	0	79	0	43	0	4	11	4	11	3	11	3	11	30	0	14	0	76	0	43	0	58	122	43	119	2	0	2	0	4	4	0	0	0	0						
25	93	158	121	97	7	12	5	12	4	11	4	11	655	804	544	418	1112	1818	1377	1100	7	12	5	11	4	11	4	11	605	776	536	415	1100	1812	1376	1100	2421	5407	2333	5387	88	154	120	96	458	458	0	0	0	0						
26	129	153	146	109	4	11	4	11	3	11	3	11	503	538	497	367	1413	1663	1583	1181	4	11	4	11	3	11	3	11	500	537	497	367	1412	1662	1583	1181	1905	5840	1901	5838	124	137	139	100	500	500	0	0	0	0						
27	0	0	0	2	8	12	5	11	4	11	4	11	0	0	0	7	0	0	0	22	8	12	5	11	4	11	4	11	0	0	0	7	0	0	0	22	7	22	7	22	0	0	0	0	0	0	0	0	0	0	0					
28	17	24	0	1	8	12	5	11	4	11	4	11	129	113	0	4	204	268	0	11	8	12	5	11	4	11	4	11	136	117	0	4	204	268	0	11	246	482	256	483	17	17	0	0	0	0	34	34	0	0						

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Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)														With Proposed Scheme (2011)														Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change						
					μg/m <sup>3</sup> 20 m from Road Centre		μg/m <sup>3</sup> 70 m from Road Centre		μg/m <sup>3</sup> 115 m from Road Centre		μg/m <sup>3</sup> 175 m from Road Centre		NO <sub>2</sub> Conc Multiplied by Number of Properties				PM <sub>10</sub> Conc Multiplied by Number of Properties				μg/m <sup>3</sup> 20 m from Road Centre		μg/m <sup>3</sup> 70 m from Road Centre		μg/m <sup>3</sup> 115 m from Road Centre		μg/m <sup>3</sup> 175 m from Road Centre		NO <sub>2</sub> Conc Multiplied by Number of Properties																		PM <sub>10</sub> Conc Multiplied by Number of Properties				
	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>			
	29	73	43	5	5	3	10	2	10	2	10	2	10	195	91	10	10	726	421	49	49	3	10	2	10	2	10	2	10	194	91	10	10	726	421	49	49	305	1245	304	1245	73	43	5	5	126	126	0	0	0	0
30	89	146	157	177	6	11	4	11	3	11	3	11	510	571	527	563	995	1575	1677	1885	3	11	3	11	3	11	3	11	284	453	484	544	949	1553	1669	1882	2171	6132	1765	6053	83	114	106	111	414	414	0	0	0	0	
31	17	61	87	100	4	11	4	11	3	11	3	11	76	214	280	312	185	648	919	1054	5	11	4	11	3	11	3	11	81	220	283	314	186	650	920	1055	882	2806	897	2811	8	47	45	40	0	0	140	140	0	0	
32	182	102	142	136	7	11	4	11	4	11	3	11	1336	455	504	443	2090	1102	1508	1437	5	11	4	11	3	11	3	11	933	379	467	429	2007	1089	1502	1435	2738	6138	2208	6033	160	76	126	101	463	463	0	0	0	0	
33	25	12	6	4	3	11	2	11	2	11	2	11	67	29	14	9	267	128	64	43	3	11	2	11	2	11	2	11	67	29	14	9	267	128	64	43	119	501	120	501	17	6	3	1	0	0	27	27	0	0	
34	43	51	37	36	2	11	2	11	2	11	2	11	104	122	89	86	453	537	390	379	2	11	2	11	2	11	2	11	103	122	88	86	453	537	390	379	402	1759	399	1759	33	37	22	20	112	112	0	0	0	0	
35	29	20	12	14	3	11	2	11	2	11	2	11	79	49	28	33	310	213	128	149	3	11	2	11	2	11	2	11	78	49	28	33	310	213	128	149	189	800	188	799	22	15	10	13	60	60	0	0	0	0	
36	0	0	0	0	4	11	4	11	3	11	3	11	0	0	0	0	0	0	0	0	0	4	11	4	11	3	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
37	0	0	0	0	8	12	5	11	4	11	4	11	0	0	0	0	0	0	0	0	9	12	5	11	4	11	4	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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40	14	15	8	8	3	10	2	10	2	10	2	10	42	36	18	17	140	149	79	79	3	10	2	10	2	10	2	10	41	36	18	17	140	148	79	79	113	447	112	446	13	15	8	8	44	44	0	0	0	0	
41	0	1	0	4	8	12	5	11	5	11	4	11	0	5	0	17	0	11	0	45	9	12	6	11	5	11	4	11	0	6	0	17	0	11	0	45	23	56	23	56	0	1	0	4	0	0	5	5	0	0	
42	8	2	1	3	4	11	3	11	3	11	3	11	31	6	3	9	86	21	11	32	3	11	3	11	3	11	3	11	24	6	3	9	85	21	11	32	49	150	42	148	8	2	1	3	14	14	0	0	0	0	
43	8	4	3	3	8	12	5	11	4	11	4	11	65	20	12	11	95	44	33	32	9	12	5	11	4	11	4	11	69	21	12	11	96	44	33	32	108	205	113	206	8	3	1	0	0	0	12	12	0	0	
44	16	7	8	6	5	13	3	12	2	12	2	12	81	21	19	13	207	87	99	74	5	13	3	13	2	12	2	12	88	22	20	14	209	88	99	74	135	468	144	469	14	6	8	5	0	0	33	33	0	0	
45	11	5	2	2	5	11	4	11	3	10	3	10	50	19	7	7	118	53	21	21	4	11	4	10	3	10	3	10	48	18	7	7	117	52	21	21	83	212	79	211	11	5	2	2	20	20	0	0	0	0	
46	2	0	0	1	10	12	6	11	4	11	4	11	19	0	0	4	24	0	0	11	10	12	6	11	4	11	4	11	19	0	0	4	24	0	0	11	23	34	24	34	0	0	0	1	0	0	1	1	0	0	
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48	0	15	26	23	10	12	6	12	5	11	5	11	0	94	129	104	0	173	292	257	10	12	6	12	5	11	5	11	0	94	129	104	0	173	292	257	327	722	327	722	0	0	0	0	0	0	0	0	0	0	
49	16	3	4	4	2	14	2	14	2	14	2	14	40	7	10	10	224	42	56	56	2	14	2	14	2	14	2	14	39	7	10	10	224	42	56	56	66	378	66	377	11	0	4	4	19	19	0	0	0	0	
50	4	8	5	0	3	11	2	11	2	11	2	11	11	20	12	0	45	90	56	0	3	11	2	11	2	11	2	11	11	20	12	0	45	90	56	0	43	191	43	191	4	8	5	0	17	17	0	0	0	0	
51	1	0	0	0	3	10	3	10	3	10	3	10	3	0	0	0	10	0	0	0	0	3	10	3	10	3	10	3	0	0	0	0	10	0	0	0	3	10	3	10	1	0	0	0	1	1	0	0	0	0	
52	1	0	0	0	5	11	4	11	4	11	4	11	5	0	0	0	11	0	0	0	4	11	4	11	4	11	4	11	4	0	0	0	0	11	0	0	0	5	11	4	11	0	0	0	0	0	0	0	0	0	0
53	93	88	52	23	5	11	4	11	4	11	4	11	427	354	200	87	991	930	548	242	4	11	4	11	4	11	4	11	366	333	196	87	980	927	548	242	1069	2711	972	2697	78	85	50	19	232	232	0	0	0	0	
54	123	122	37	19	7	12	5	11	5	11	4	11	830	617	168	83	1431	1366	410	210	6	12	5	11	4	11	4	11	766	596	166	83	1421	1363	410	210	1699	3417	1612	3403	85	75	28	4	192	192	0	0	0	0	
55	201	183	73	35	5	11	5	11	4	11	4	11	1067	841	321	152	2253	2027	806	386	4	11	4	11	4	11	4	11	877	789	314	150	2217	2017	805	386	2380	5472	2130	5425	171	133	47	19	370	370	0	0	0	0	
56	138	88	13	5	6	12	5	11	5	11	4	11	887	436	59	22	1604	985	144	55	7	12	5	11	5	11	4	11	897	438	59	22	1608	986	144	55	1403	2788	1416	2793	110	49	7	0	0	0	166	166	0	0	
57	1	25	0	0	6	11	5	11	4	11	4	11	6	121	0	0	11	278	0	0	6	11	5	11	4	11	4	11	6	121	0	0	11	279	0	0	127	290	127	290	0	0	0	0	0	0	0	0	0	0	
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59	0	0	0	0	6	11	5	11	4	11	4	11	0	0	0	0	0	0	0	0	6	11	5	11	4	11	4	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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**Appendix A55.1 – Wider Air Quality Impacts**

Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)												With Proposed Scheme (2011)												Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change												
					µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre			µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties			µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre																	µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties	
	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>															
60	163	189	176	107	5	15	3	15	3	15	3	15	3	15	823	643	510	293	2480	2804	2593	1573	5	15	4	15	3	15	3	15	886	668	519	295	2491	2808	2594	1573	2269	9449	2368	9465	158	185	172	105	0	0	620	620	0	0	
61	60	28	31	23	4	15	3	15	3	15	3	15	3	15	218	82	84	61	906	418	462	342	3	15	3	15	3	15	3	15	204	80	84	61	902	418	461	342	445	2128	429	2123	59	26	26	18	129	129	0	0	0	0	
62	14	17	9	0	10	13	8	13	8	12	8	12	138	141	71	0	0	181	214	112	0	10	13	8	13	8	12	8	12	135	140	70	0	181	213	112	0	351	507	346	506	0	0	0	0	0	0	0	0	0	0		
63	3	4	3	0	14	14	10	13	8	13	8	12	42	39	25	0	43	52	38	0	13	14	9	13	8	13	8	12	40	38	25	0	42	52	38	0	105	132	103	132	0	0	0	0	0	0	0	0	0	0			
64	0	0	0	0	10	13	8	13	8	12	8	12	0	0	0	0	0	0	0	0	9	13	8	13	8	12	8	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
65	10	0	3	2	9	12	6	12	5	11	8	12	88	0	16	10	124	0	35	23	9	12	6	12	5	12	5	11	88	0	16	10	124	0	35	23	114	181	115	181	9	0	3	2	0	0	14	14	0	0			
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68	53	57	31	16	19	16	16	15	15	15	15	1006	926	478	243	831	853	458	235	18	15	16	15	15	15	15	15	952	907	475	242	817	849	457	235	2653	2378	2577	2359	35	28	23	11	97	97	0	0	0	0				
69	43	70	145	57	14	15	13	15	13	15	13	619	942	1913	747	652	1042	2147	843	14	15	13	15	13	15	13	15	601	933	1907	746	646	1039	2145	842	4221	4684	4187	4672	39	54	117	17	227	227	0	0	0	0				
70	16	29	31	24	19	16	16	15	15	15	15	311	475	480	365	252	435	458	353	18	15	16	15	15	15	15	15	294	465	476	364	248	433	458	353	1631	1498	1599	1491	0	0	0	0	0	0	0	0	0	0				
71	16	4	0	0	21	17	17	15	16	15	15	334	67	0	0	267	61	0	0	19	16	16	15	15	15	15	15	309	65	0	0	258	60	0	0	401	328	375	318	0	0	0	0	0	0	0	0	0	0	0			
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74	36	44	14	8	14	15	12	14	12	14	11	498	531	162	91	531	628	198	113	14	15	12	14	12	14	11	14	493	529	161	91	530	628	198	113	1282	1470	1274	1468	0	8	0	0	8	8	0	0	0	0				
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76	48	30	21	0	15	15	12	14	11	14	10	723	350	223	0	711	418	288	0	14	15	11	14	11	14	10	14	684	342	221	0	702	417	287	0	1297	1417	1247	1406	0	0	0	0	0	0	0	0	0	0	0	0		
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81	39	26	15	11	18	16	14	15	13	14	13	690	367	195	139	625	385	217	158	16	16	14	15	13	14	13	14	634	355	193	139	605	381	216	158	1392	1384	1321	1359	27	16	7	5	55	55	0	0	0	0	0	0		
82	16	23	13	2	17	15	14	15	13	14	13	269	318	168	25	245	336	187	29	16	15	14	15	13	14	13	14	257	312	167	25	243	335	187	29	780	797	761	793	3	4	0	0	7	7	0	0	0	0	0	0		
83	0	0	0	0	17	15	14	15	13	14	13	0	0	0	0	0	0	0	0	16	15	14	15	13	14	13	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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**Aberdeen Western Peripheral Route**  
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Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)										With Proposed Scheme (2011)										Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change																		
					µg/m <sup>3</sup> 20 m from Road Centre		µg/m <sup>3</sup> 70 m from Road Centre		µg/m <sup>3</sup> 115 m from Road Centre		µg/m <sup>3</sup> 175 m from Road Centre		NO <sub>2</sub> Conc Multiplied by Number of Properties		PM <sub>10</sub> Conc Multiplied by Number of Properties		µg/m <sup>3</sup> 20 m from Road Centre		µg/m <sup>3</sup> 70 m from Road Centre		µg/m <sup>3</sup> 115 m from Road Centre		µg/m <sup>3</sup> 175 m from Road Centre																NO <sub>2</sub> Conc Multiplied by Number of Properties		PM <sub>10</sub> Conc Multiplied by Number of Properties														
	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>																					
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102	31	0	0	0	10	13	10	13	10	13	10	13	319	0	0	0	410	0	0	0	10	13	10	13	10	13	321	0	0	0	410	0	0	0	319	410	371	410	9	0	0	0	0	0	9	9	0	0	0	0					
103	0	0	0	0	14	15	11	14	11	13	10	13	0	0	0	0	0	0	0	0	13	15	11	14	11	13	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
104	4	8	5	0	19	17	15	15	13	15	13	14	76	116	66	0	66	120	73	0	18	16	14	15	13	14	70	112	65	0	64	118	72	0	258	258	248	255	0	0	0	0	0	0	0	0	0	0	0	0	0				
105	25	31	4	0	18	15	13	14	11	13	11	13	456	397	44	0	381	427	54	0	16	15	12	14	11	13	397	372	43	0	364	421	53	0	898	862	813	838	13	0	0	0	13	13	0	0	0	0							
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111	28	18	15	3	18	16	17	16	17	16	17	16	514	313	257	51	455	285	236	47	18	16	17	16	17	512	313	257	51	454	285	236	47	1135	1022	1132	1021	8	6	0	0	14	14	0	0	0	0								
112	14	15	3	0	20	16	18	16	17	16	17	16	275	267	52	0	231	239	47	0	20	16	18	16	17	16	275	267	52	0	231	239	47	0	593	517	594	517	8	0	0	0	0	8	8	0	0	0	0						
113	73	21	1	0	21	17	20	16	19	16	19	16	1567	411	19	0	1261	345	16	0	21	17	20	16	19	16	1553	410	19	0	1254	344	16	0	1997	1621	1982	1614	30	16	0	0	46	46	0	0	0	0							
114	66	29	74	77	19	16	17	16	17	15	17	15	1276	503	1242	1278	1080	452	1138	1179	19	16	17	16	17	15	1265	502	1240	1278	1076	452	1137	1179	4299	3849	4284	3844	58	26	67	72	223	223	0	0	0	0							
115	24	28	9	5	21	17	18	16	17	16	17	16	512	513	157	86	414	451	142	79	21	17	18	16	17	16	500	509	156	86	410	450	142	79	1268	1086	1250	1081	2	0	0	0	2	2	0	0	0	0							
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117	20	37	15	0	20	16	17	15	16	15	15	15	394	612	234	0	313	548	219	0	19	15	16	15	15	15	383	605	233	0	310	547	219	0	1240	1080	1222	1075	5	25	5	0	35	35	0	0	0	0							
118	0	3	8	0	18	15	16	15	15	15	15	15	0	48	124	0	0	44	116	0	18	15	16	15	15	15	0	48	123	0	0	44	116	0	0	172	160	171	160	0	0	0	0	0	0	0	0	0	0	0					
119	88	48	2	12	17	16	13	15	12	14	12	14	1462	635	24	143	1379	701	29	171	16	16	13	15	12	14	1447	632	24	142	1372	700	29	171	2264	2280	2246	2272	60	4	0	0	64	64	0	0	0	0							
120	143	75	10	0	13	15	13	15	12	15	12	15	1928	947	124	0	2129	1100	146	0	14	15	13	15	12	15	1934	948	124	0	2130	1100	146	0	3000	3376	3006	3377	98	39	4	0	0	0	141	141	0	0							
121	38	48	24	12	15	15	13	14	12	14	12	14	575	612	289	142	573	693	342	171	15	15	13	14	12	14	573	611	289	142	572	693	342	171	1618	1779	1615	1778	1	0	0	0	1	1	0	0	0	0							







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**Appendix A55.1 – Wider Air Quality Impacts**

Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)																With Proposed Scheme (2011)																Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change				
					µg/m <sup>3</sup> 20 m from Road Centre				µg/m <sup>3</sup> 70 m from Road Centre				µg/m <sup>3</sup> 115 m from Road Centre				µg/m <sup>3</sup> 175 m from Road Centre				NO <sub>2</sub> Conc Multiplied by Number of Properties				PM <sub>10</sub> Conc Multiplied by Number of Properties				µg/m <sup>3</sup> 20 m from Road Centre				µg/m <sup>3</sup> 70 m from Road Centre																		µg/m <sup>3</sup> 115 m from Road Centre		
	0-50	50-100	100-150	150-200	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>											
215	141	140	114	2	17	15	17	15	17	15	17	15	17	15	2423	2337	1888	33	2182	2146	1743	31	17	15	17	15	17	15	2414	2335	1887	33	2179	2145	1743	31	6681	6102	6669	6097	77	77	57	2	213	213	0	0	0	0			
216	13	9	45	2	20	16	18	16	17	15	17	15	260	158	758	33	213	140	692	31	20	16	18	16	17	15	17	15	260	158	758	33	213	140	692	31	1209	1076	1209	1076	1	8	25	0	34	34	0	0	0	0			
217	1	15	30	2	19	16	17	16	17	15	17	15	19	260	503	33	16	233	461	31	19	16	17	16	17	15	17	15	19	260	503	33	16	233	461	31	815	740	815	740	1	13	3	0	0	0	17	17	0	0			
218	43	45	104	57	18	16	17	15	17	15	17	15	790	767	1735	944	683	695	1594	872	18	16	17	15	17	15	17	15	794	769	1735	944	684	696	1594	872	4236	3845	4242	3846	34	34	55	20	0	0	143	143	0	0			
219	52	67	76	67	19	16	18	16	17	16	17	16	987	1178	1306	1143	849	1062	1195	1051	19	16	18	16	17	16	17	16	991	1180	1307	1144	849	1062	1195	1051	4614	4157	4621	4158	40	42	51	23	0	0	156	156	0	0			
220	51	66	10	0	20	17	19	16	19	16	19	16	1010	1258	189	0	842	1069	161	0	20	16	19	16	19	16	19	16	1004	1256	188	0	839	1068	161	0	2457	2072	2449	2068	11	12	2	0	25	25	0	0	0	0			
221	86	66	38	11	18	16	17	16	17	16	17	16	1557	1143	650	187	1387	1043	597	172	18	16	17	16	17	16	17	16	1554	1142	650	187	1386	1042	597	172	3538	3199	3533	3197	52	9	0	0	61	61	0	0	0	0			
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223	252	98	0	0	21	17	20	16	19	16	19	16	5358	1911	0	0	4293	1602	0	0	21	17	19	16	19	16	19	16	5344	1910	0	0	4287	1601	0	0	7269	5895	7254	5888	68	20	0	0	88	88	0	0	0	0			
224	286	14	0	0	20	16	18	15	17	15	17	15	5601	251	0	0	4513	213	0	0	20	16	18	15	17	15	17	15	5621	251	0	0	4518	213	0	0	5852	4726	5872	4731	241	3	0	0	0	0	244	244	0	0			
225	96	5	0	0	20	16	18	15	17	15	17	15	1878	89	0	0	1511	76	0	0	20	16	18	15	17	15	17	15	1876	89	0	0	1511	76	0	0	1967	1587	1965	1587	40	0	0	0	40	40	0	0	0	0			
226	40	3	0	0	21	17	19	16	19	16	19	16	824	58	0	0	674	49	0	0	21	17	19	16	19	16	19	16	823	58	0	0	674	49	0	0	882	723	881	722	1	0	0	0	1	1	0	0	0	0			
227	69	3	0	0	20	16	19	16	19	16	19	16	1361	57	0	0	1135	49	0	0	20	16	19	16	19	16	19	16	1352	57	0	0	1131	48	0	0	1419	1184	1409	1180	31	3	0	0	34	34	0	0	0	0			
228	41	0	0	0	20	16	18	15	17	15	17	15	821	0	0	0	657	0	0	0	20	16	18	15	17	15	17	15	832	0	0	0	662	0	0	0	821	657	832	662	0	0	0	0	0	0	0	0	0	0			
229	15	1	0	0	20	16	18	15	17	15	17	15	306	18	0	0	244	15	0	0	20	16	18	15	17	15	17	15	304	18	0	0	243	15	0	0	324	259	322	258	15	0	0	0	15	15	0	0	0	0			
230	26	17	7	8	3	11	2	11	2	11	2	11	72	37	14	16	296	192	79	90	3	11	2	11	2	11	2	11	69	37	14	16	296	191	79	90	139	657	136	656	25	17	7	8	57	57	0	0	0	0			
231	16	4	2	1	4	13	3	12	3	12	3	12	61	12	5	3	203	50	25	12	4	13	3	12	3	12	3	12	61	12	5	3	203	50	25	12	81	290	80	290	15	4	2	1	22	22	0	0	0	0			
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**Aberdeen Western Peripheral Route**  
**Environmental Statement Appendices 2007**  
**Part E: Cumulative Assessment**  
**Appendix A55.1 – Wider Air Quality Impacts**

Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)												With Proposed Scheme (2011)												Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change													
					µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre			µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties			µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre																	µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties		
	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>																		
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286	66	66	21	7	16	15	15	15	15	14	15	14	1027	1006	318	106	965	958	304	101	16	15	15	15	14	15	14	1024	1006	318	106	964	958	304	101	2458	2329	2454	2328	58	34	10	0	102	102	0	0	0	0					
287	1	19	0	0	16	15	15	15	15	15	15	14	16	293	0	0	15	276	0	0	16	15	15	15	14	15	14	16	292	0	0	0	15	276	0	0	309	291	308	291	0	0	0	0	0	0	0	0	0	0				
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292	82	6	6	0	15	14	15	14	15	14	15	14	1240	91	91	0	1187	87	87	0	15	14	15	14	15	14	1240	91	91	0	1187	87	87	0	1422	1361	1422	1361	52	0	0	0	0	0	0	0	52	52	0	0	0	0		
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296	35	157	63	2	13	13	9	13	8	12	8	12	441	1463	524	16	467	1969	776	25	12	13	9	12	8	12	8	417	1427	519	16	460	1960	775	24	2444	3236	2379	3220	18	89	39	1	147	147	0	0	0	0					
297	83	101	103	33	17	15	16	15	15	15	15	14	1372	1570	1572	501	1234	1474	1495	478	16	15	16	15	15	15	14	1366	1567	1571	501	1232	1473	1495	478	5014	4682	5005	4679	77	77	39	26	219	219	0	0	0	0					
298	27	49	66	7	16	15	15	15	15	15	15	14	434	755	1004	106	397	713	957	101	16	15	15	15	15	14	434	755	1004	106	397	713	957	101	2299	2168	2299	2169	11	23	51	0	0	0	85	85	0	0	0	0				
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301	4	15	11	6	16	14	15	14	15	14	15	14	65	232	167	91	58	214	156	85	16	14	15	14	15	14	65	232	167	91	58	214	156	85	555	513	555	513	0	0	0	0	0	0	0	0	0	0						
302	12	31	29	7	17	15	17	15	16	15	16	15	207	512	473	114	184	470	438	106	17	15	17	15	16	15	207	512	473	114	184	470	438	106	1306	1197	1305	1197	8	20	8	6	42	42	0	0	0	0						
303	9	1	6	0	19	16	18	15	17	15	17	15	170	18	103	0	143	15	92	0	19	16	18	15	17	15	169	18	103	0	142	15	92	0	291	250	290	250	9	1	0	0	10	10	0	0	0	0						
304	0	1	0	0	20	16	17	15	17	15	16	15	0	17	0	0	0	15	0	0	20	16	17	15	17	15	16	0	17	0	0	0	15	0	0	0	17	15	17	15	0	0	0	0	0	0	0	0	0	0	0	0		
305	0	0	12	0	23	17	19	16	18	15	17	15	0	0	211	0	0	0	185	0	22	17	19	16	18	15	17	0	0	211	0	0	0	185	0	211	185	211	185	0	0	0	0	0	0	0	0	0	0	0	0	0		
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307	1	1	2	0	18	15	17	15	16	15	16	15	18	17	33	0	15	15	30	0	18	15	17																															





**Aberdeen Western Peripheral Route**  
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**Appendix A5.1 – Wider Air Quality Impacts**

Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)																With Proposed Scheme (2011)																Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change		
					µg/m <sup>3</sup> 20 m from Road Centre				µg/m <sup>3</sup> 70 m from Road Centre				µg/m <sup>3</sup> 115 m from Road Centre				µg/m <sup>3</sup> 175 m from Road Centre				NO <sub>2</sub> Conc Multiplied by Number of Properties				PM <sub>10</sub> Conc Multiplied by Number of Properties				µg/m <sup>3</sup> 20 m from Road Centre				µg/m <sup>3</sup> 70 m from Road Centre																		µg/m <sup>3</sup> 115 m from Road Centre
	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>									
339	208	226	241	178	16	14	15	14	15	14	15	14	15	14	3287	3447	3638	2679	2950	3173	3374	2490	16	14	15	14	15	14	3258	3438	3635	2678	2943	3171	3373	2490	13050	11986	13009	11976	180	181	194	106	661	661	0	0	0	0	
340	22	3	0	0	15	14	15	14	15	14	15	14	15	14	339	45	0	0	311	42	0	0	15	14	15	14	15	14	332	45	0	0	338	42	0	0	384	353	377	350	8	0	0	0	8	8	0	0	0	0	
341	1	0	0	0	10	13	10	13	10	13	10	13	10	13	10	0	0	0	13	0	0	0	10	13	10	13	10	13	10	0	0	0	0	13	0	0	0	10	13	10	13	1	0	0	0	1	1	0	0	0	0
342	1	0	0	0	18	15	16	14	15	14	15	14	18	0	0	0	0	15	0	0	0	18	15	16	14	15	14	18	0	0	0	0	15	0	0	0	18	15	18	15	0	0	0	0	0	0	0	0	0	0	
343	74	71	66	34	9	13	9	13	9	13	9	13	9	13	667	628	581	299	931	889	825	425	9	13	9	13	9	13	658	626	580	299	928	888	825	425	2174	3070	2162	3066	66	64	56	32	218	218	0	0	0	0	
344	92	87	58	62	10	13	9	13	9	13	9	13	9	13	947	803	518	548	1194	1100	728	776	10	13	9	13	9	13	949	804	518	548	1195	1100	728	776	2816	3798	2819	3799	71	52	36	46	0	0	205	205	0	0	
345	55	75	55	41	11	13	10	13	10	13	10	13	10	13	596	780	565	420	729	986	721	537	11	13	10	13	10	13	587	776	564	419	726	985	721	537	2360	2974	2347	2969	27	39	27	24	117	117	0	0	0	0	
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347	92	115	117	61	9	13	9	13	9	13	9	13	9	13	853	1026	1033	537	1159	1441	1464	763	9	13	9	13	9	13	848	1024	1032	537	1157	1440	1463	763	3449	4826	3441	4823	80	87	81	29	277	277	0	0	0	0	
348	66	114	128	95	9	13	9	13	9	13	9	13	9	13	612	1017	1130	836	831	1428	1601	1188	9	13	9	13	9	13	608	1015	1129	836	830	1427	1601	1188	3595	5048	3588	5046	57	90	101	78	326	326	0	0	0	0	
349	136	158	120	94	7	12	7	12	7	12	7	12	7	12	995	1112	835	652	1611	1856	1407	1101	7	12	7	12	7	12	964	1101	832	651	1600	1853	1406	1101	3594	5976	3549	5960	132	141	105	80	458	458	0	0	0	0	
350	60	95	65	41	8	12	7	12	7	12	7	12	7	12	455	676	454	285	712	1117	762	480	7	12	7	12	7	12	445	671	453	284	709	1115	762	480	1870	3072	1853	3066	43	62	23	11	139	139	0	0	0	0	
351	12	5	3	9	10	13	8	12	7	12	7	12	7	12	116	39	22	64	151	60	36	107	10	13	8	12	7	12	119	40	22	64	152	60	36	107	242	354	245	355	10	1	0	7	0	0	18	18	0	0	
352	6	4	5	4	7	11	6	11	6	11	6	11	6	11	40	26	32	26	69	46	57	46	7	11	6	11	6	11	40	26	32	26	69	46	57	46	123	217	123	217	3	3	5	3	0	0	0	0	14	14	
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354	152	62	14	19	17	15	16	15	15	15	15	15	15	2540	976	216	292	2294	913	205	277	16	15	16	15	15	15	2484	969	216	292	2273	911	205	277	4024	3690	3960	3666	120	47	0	0	167	167	0	0	0	0		
355	79	40	59	39	16	15	15	15	15	15	15	15	15	1227	615	905	598	1158	584	861	569	15	15	15	15	15	15	1219	614	904	598	1155	584	860	569	3345	3172	3335	3168	54	25	35	15	129	129	0	0	0	0		
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357	11	40	23	19	12	14	11	13	10	13	10	13	131	429	239	195	150	533	304	251	12	14	11	13	10	13	10	13	131	429	239	195	150	533	304	251	993	1238	993	1238	2	10	5	4	0	0	21	21	0	0	
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360	223	340	313	150	11	13	9	13	9	13	9	13	9	13	2357	3180	2819	1334	2907	4327	3957	1892	11	13	9	13	9	13	2385	3194	2823	1335	2918	4332	3959	1893	9690	13083	9736	13102	217	315	281	129	0	0	942	942	0	0	
361	122	122	99	33	11	13	10	13	9	13	9	13	1398	1175	901	295	1630	1564	1255	417	11	13	9	13	9	13	1334	1155	895	294	1608	1558	1253	416	3769	4865	3679	4836	118	110	85	29	342	342	0	0	0	0			
362	34	45	26	6	14	15	12	14	11	14	11	14	485	540	295	67	497	625	356	82	14	15	12	14	11	14	14	474	536	294	67	493	624	356	82	1387	1560	1370	1554	9	24	18	1	52	52	0	0	0	0		
363	20	29	25	6	14	15	12	14	11	14	11	14	284	347	283	67	291	402	342	82	14	14	12	14	11	14	14	277	344	282	67	288	401	342	82	981	1117	970	1112	11	7	0	0	18	18	0	0	0	0		
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**Aberdeen Western Peripheral Route**  
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**Appendix A55.1 – Wider Air Quality Impacts**

Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)										With Proposed Scheme (2011)										Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change																	
					µg/m <sup>3</sup> 20 m from Road Centre		µg/m <sup>3</sup> 70 m from Road Centre		µg/m <sup>3</sup> 115 m from Road Centre		µg/m <sup>3</sup> 175 m from Road Centre		NO <sub>2</sub> Conc Multiplied by Number of Properties		PM <sub>10</sub> Conc Multiplied by Number of Properties		µg/m <sup>3</sup> 20 m from Road Centre		µg/m <sup>3</sup> 70 m from Road Centre		µg/m <sup>3</sup> 115 m from Road Centre		µg/m <sup>3</sup> 175 m from Road Centre																NO <sub>2</sub> Conc Multiplied by Number of Properties		PM <sub>10</sub> Conc Multiplied by Number of Properties													
	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>																		
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377	13	11	6	0	14	15	12	14	11	14	11	14	11	14	177	130	68	0	190	153	82	0	13	14	12	14	11	14	11	14	172	128	67	0	188	152	82	0	374	425	368	423	6	2	0	0	8	8	0	0	0	0		
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379	136	127	121	59	7	12	6	12	5	11	5	11	5	11	905	712	642	307	1610	1466	1387	675	7	12	6	12	5	11	5	11	911	714	642	307	1611	1466	1387	675	2565	5137	2574	5138	120	122	110	47	0	0	399	399	0	0		
380	124	107	20	0	12	14	11	14	11	14	11	14	11	14	1451	1199	221	0	1717	1462	272	0	12	14	11	14	11	14	11	14	1458	1201	221	0	1717	1462	272	0	2872	3452	2880	3451	83	94	14	0	0	191	191	0	0	0	0	
381	37	32	11	3	12	14	11	14	11	14	11	14	11	14	447	362	122	33	516	438	150	41	12	14	11	14	11	14	11	14	441	361	122	33	514	438	150	41	2674	1145	957	1142	16	5	0	0	21	21	0	0	0	0		
382	32	47	41	19	12	14	11	14	11	14	11	14	11	14	388	533	456	210	447	644	559	258	12	14	11	14	11	14	11	14	378	528	454	210	443	642	558	258	1585	1908	1571	1902	22	21	13	5	61	61	0	0	0	0		
383	77	104	108	79	9	13	7	12	7	12	7	12	7	12	703	778	756	541	965	1258	1293	943	8	12	7	12	7	12	7	12	642	752	746	538	949	1251	1291	942	2778	4458	2679	4433	74	99	104	74	351	351	0	0	0	0		
384	34	25	38	26	13	14	11	14	10	13	10	13	10	13	453	274	390	261	490	342	513	349	13	14	11	14	10	13	10	13	446	273	390	261	487	342	512	349	1379	1693	1370	1690	29	19	24	18	90	90	0	0	0	0		
385	31	35	37	28	12	14	10	14	10	13	10	13	10	13	364	366	374	280	437	476	498	376	11	14	10	14	10	13	10	13	355	363	373	279	434	475	498	376	1384	1787	1371	1782	24	22	14	14	74	74	0	0	0	0		
386	13	16	21	12	13	14	11	14	10	13	10	13	10	13	174	176	216	121	188	219	283	161	13	14	11	14	10	13	10	13	171	175	215	121	188	219	283	161	686	852	682	851	3	7	7	2	19	19	0	0	0	0		
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388	11	8	2	1	9	13	6	12	6	12	5	11	5	11	98	51	11	5	139	94	23	11	8	12	6	12	5	11	5	11	87	48	11	5	135	93	23	11	166	267	151	263	0	0	0	0	0	0	0	0	0	0		
389	36	15	5	3	9	13	8	12	7	12	7	12	7	12	335	113	35	21	453	182	60	36	9	12	7	12	7	12	7	12	316	111	35	20	448	181	60	36	503	730	482	725	28	9	3	2	42	42	0	0	0	0		
390	35	22	8	1	5	11	5	11	5	11	5	11	5	11	180	108	39	5	393	245	89	11	5	11	5	11	5	11	5	11	171	106	39	5	390	245	89	11	331	738	321	735	27	17	6	1	51	51	0	0	0	0		
391	20	2	3	1	8	12	7	12	7	12	7	12	7	12	158	14	21	7	244	24	36	12	7	12	7	12	7	12	7	12	148	14	20	7	241	24	36	12	200	316	189	313	13	1	1	1	16	16	0	0	0	0		
392	46	62	14	6	5	11	5	11	5	11	5	11	5	11	237	305	68	29	517	692	156	67	5	11	5	11	5	11	5	11	225	300	67	29	513	690	156	67	639	1431	622	1425	38	29	11	4	82	82	0	0	0	0		
393	32	15	19	15	8	12	6	12	5	11	5	11	5	11	260	91	104	79	388	174	218	172	7	12	6	12	5	11	5	11	239	88	102	79	383	174	218	172	534	952	508	947	24	13	10	0	47	47	0	0	0	0		
394	54	33	15	17	8	12	6	12	5	12	5	11	448	203	82	90	664	385	173	195	8	12	6	12	5	11	5	11	409	195	81	89	654	383	172	195	823	1416	774	1404	39	14	7	9	69	69	0	0	0	0				
395	53	48	39	16	6	12	5	11	5	11	5	11	5	11	309	257	203	83	616	551	446	183	6	12	5	11	5	11	5	11	295	253	202	83	612	550	446	183	852	1796	834	1791	43	39	25	12	119	119	0	0	0	0		
396	43	52	39	23	7	12	6	12	5	11	5	11	5	11	307	300	209	120	518	603	448	263	7	12	6	12	5	11	5	11	301	297	208	120	515	602	447	263	935	1832	927	1828	25	26	22	3	76	76	0	0	0	0		
397	12	10	14	1	6	12	5	11	5	11	5	11	5	11	70	54	73	5	140	115	160	11	6	12	5	11	5	11	5	11	67	53	73	5	139	115	160	11	202	427	198	425	6	2	0	0	8	8	0	0	0	0		
398	102	79	46	40	6	12	5	11	5	11	5	11	5	11	595	423	240	207	1183	906	526	457	6	12	5	11	5	11	5	11	598	424	240	207	1186	907	526	457	1464	3072	1469	3076	85	54	39	25	0	0	203	203	0	0		
399	27	35	18	23	7	12	6	12	5	11	5	11	5	11	195	202	97	120	325	406																																		







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**Appendix A55.1 – Wider Air Quality Impacts**

Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)										With Proposed Scheme (2011)										Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change																			
					µg/m <sup>3</sup> 20 m from Road Centre		µg/m <sup>3</sup> 70 m from Road Centre		µg/m <sup>3</sup> 115 m from Road Centre		µg/m <sup>3</sup> 175 m from Road Centre		NO <sub>2</sub> Conc Multiplied by Number of Properties		PM <sub>10</sub> Conc Multiplied by Number of Properties		µg/m <sup>3</sup> 20 m from Road Centre		µg/m <sup>3</sup> 70 m from Road Centre		µg/m <sup>3</sup> 115 m from Road Centre		µg/m <sup>3</sup> 175 m from Road Centre																NO <sub>2</sub> Conc Multiplied by Number of Properties		PM <sub>10</sub> Conc Multiplied by Number of Properties															
					0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>															NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>						
494	45	18	17	9	19	16	18	16	18	16	18	16	18	16	18	16	835	323	302	159	721	284	267	141	19	16	18	16	18	16	18	16	18	16	18	16	833	322	302	159	720	284	267	141	1619	1412	1616	1411	20	6	0	0	0	0	0	0
495	104	74	51	16	18	16	18	16	18	16	18	16	18	16	18	16	1897	1320	904	283	1647	1163	800	251	18	16	18	16	18	16	18	16	18	16	1895	1320	904	283	1646	1162	799	251	4404	3859	4402	3859	69	32	37	7	145	145	0	0	0	0
496	71	35	28	9	19	16	18	16	18	16	18	16	18	16	18	16	1319	628	497	159	1134	551	439	141	19	16	18	16	18	16	18	16	18	16	1321	628	497	159	1135	551	439	141	2603	2266	2606	2267	25	7	0	0	0	0	32	32	0	0
497	84	34	23	14	17	15	17	15	17	15	17	15	17	15	17	15	1459	581	392	238	1295	521	352	214	17	15	17	15	17	15	17	15	17	15	1453	581	391	238	1293	520	351	214	2671	2381	2664	2378	57	29	14	10	110	110	0	0	0	0
498	56	51	46	32	19	16	19	16	19	16	19	16	19	16	19	16	1063	956	859	597	900	816	735	511	19	16	19	16	19	16	19	16	19	16	1063	956	859	597	900	816	735	511	3476	2961	3476	2961	30	11	9	0	50	0	0	50	0	0
499	36	22	0	0	19	16	19	16	19	16	19	16	19	16	19	16	681	412	0	0	577	352	0	0	19	16	19	16	19	16	19	16	19	16	680	412	0	0	577	352	0	0	1093	929	1092	929	11	22	0	0	33	33	0	0	0	0
500	45	44	44	32	19	16	19	16	19	16	19	16	19	16	19	16	854	825	822	597	723	704	703	511	19	16	19	16	19	16	19	16	19	16	854	825	822	597	723	704	703	511	3098	2640	3098	2640	18	15	21	20	74	0	0	74	0	0
501	72	20	9	0	19	16	19	16	19	16	19	16	19	16	19	16	1378	376	168	0	1161	320	144	0	19	16	19	16	19	16	19	16	19	16	1372	375	168	0	1158	320	144	0	1922	1625	1916	1621	32	0	0	0	32	32	0	0	0	0
502	80	33	0	0	20	16	19	16	19	16	19	16	19	16	19	16	1573	625	0	0	1301	530	0	0	20	16	19	16	19	16	19	16	19	16	1572	625	0	0	1302	530	0	0	2199	1830	2197	1832	43	0	0	0	43	0	0	43	0	0
503	79	50	10	0	19	16	19	16	19	16	19	16	19	16	19	16	1538	944	187	0	1282	802	160	0	19	16	19	16	19	16	19	16	19	16	1531	943	187	0	1279	801	160	0	2669	2244	2661	2240	61	38	2	0	101	101	0	0	0	0
504	129	61	8	0	19	16	19	16	19	16	19	16	19	16	19	16	2469	1146	150	0	2082	977	128	0	19	16	19	16	19	16	19	16	19	16	2450	1144	149	0	2076	976	128	0	3765	3186	3743	3180	110	37	0	0	147	147	0	0	0	0
505	78	56	2	0	20	16	19	16	19	16	19	16	19	16	19	16	1528	1060	37	0	1275	900	32	0	20	16	19	16	19	16	19	16	19	16	1532	1061	37	0	1277	901	32	0	2626	2208	2631	2210	28	27	0	0	0	0	55	55	0	0
506	67	38	2	0	19	16	19	16	19	16	19	16	19	16	19	16	1250	709	37	0	1069	606	32	0	19	16	19	16	19	16	19	16	19	16	1250	709	37	0	1069	606	32	0	1996	1708	1996	1708	16	0	0	0	16	16	0	0	0	0
507	23	0	0	0	24	18	20	16	19	16	19	16	19	16	19	16	553	0	0	0	408	0	0	0	23	18	20	16	19	16	19	16	19	16	540	0	0	0	405	0	0	0	553	408	540	405	0	0	0	0	0	0	0	0	0	0
508	92	34	25	0	24	18	20	16	19	16	19	16	19	16	19	16	2201	690	480	0	1628	560	403	0	23	18	20	16	19	16	19	16	19	16	2149	683	478	0	1614	558	403	0	3371	2591	3311	2575	53	3	0	0	56	56	0	0	0	0
509	33	0	0	0	24	18	20	16	19	16	19	16	19	16	19	16	786	0	0	0	582	0	0	0	23	17	20	16	19	16	19	16	19	16	768	0	0	0	577	0	0	0	786	582	768	577	7	0	0	0	7	7	0	0	0	0
510	47	45	2	0	20	16	19	16	19	16	19	16	19	16	19	16	922	852	37	0	769	723	32	0	20	16	19	16	19	16	19	16	19	16	923	852	37	0	770	724	32	0	1811	1524	1813	1525	26	5	1	0	0	0	32	32	0	0
511	75	24	2	0	19	16	19	16	19	16	19	16	19	16	19	16	1422	450	37	0	1208	384	32	0	19	16	19	16	19	16	19	16	19	16	1421	450	37	0	1207	384	32	0	1909	1624	1908	1623	21	0	0	0	21	21	0	0	0	0
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513	109	65	0	0	20	17	19	16	19	16	19	16	19	16	19	16	2234	1248	0	0	1814	1050	0	0	21	17	19	16	19	16	19	16	19	16	2242	1249	0	0	1816	1051	0	0	3482	2865	3491	2866	71	18	0	0	0	0	89	89	0	0
514	172	61	0	0	20	16	19	16	19	16	19	16	19	16	19	16	3392	1157	0	0	2822	982	0	0	20	16	19	16	19	16	19	16	19	16	3382	1156	0	0	2818	981	0	0	4549	3804	4538	3800	67	14	0	0	81	81	0	0	0	0
515	42	19	0	0	19	16	19	16	19	16	19	16	19	16	19	16	794	356	0	0	675	304	0	0	19	16	19	16	19	16	19	16	19	16	791	355	0	0	673	304	0	0	1150	979	1147	977	23	0	0	0	23	23	0	0	0	0
516	58	32	0	0	19	16	19	16	19	16	19	16	19	16	19	16	1096	599	0	0	931	512	0	0	19	16	19	16	19	16	19	16	19	16	1092	598	0	0	930	511	0	0	1696	1443	1691	1441	23	5	0	0	28	28	0	0	0	0
517	62	33	0	0	20	17	19	16	19	16	19	16	19	16	19	16	1263	632	0	0	1031	533	0	0	21	17	19	16	19	16	19	16	19	16	1272	634	0	0	1034	534	0	0	1895	1564	1906	1567	25	7	0	0	0	0	32	32	0	0
518	63	32	0	0	20	17	19	16	19	16	19	16	19	16	19	16	1288	614	0	0	1042	516	0	0	20	16	19	16	19	16	19	16	19	16	1259	609	0	0	1032	515	0	0	1902	1558	1869	1547	14	0	0	0	14	14	0	0	0	0
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521	45	32	0	0	21	17	19	16	19	16	19	16	19	16	19	16	945	619	0	0	754	518	0	0	21	17	19	16																												













**Aberdeen Western Peripheral Route  
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Appendix A55.1 – Wider Air Quality Impacts**

Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)												With Proposed Scheme (2011)												Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better	Number of Properties Worse	Number of Properties No Change												
					µg/m³ 20 m from Road Centre			µg/m³ 70 m from Road Centre			µg/m³ 115 m from Road Centre			µg/m³ 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties			µg/m³ 20 m from Road Centre			µg/m³ 70 m from Road Centre							µg/m³ 115 m from Road Centre			µg/m³ 175 m from Road Centre				NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties			Number of Properties Within the Distance Bands Without Any Double-Counting					
	0-50	50-100	100-150	150-200	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>											
680	17	22	26	20	18	16	16	15	15	15	15	15	15	301	348	398	302	264	329	384	294	18	15	16	15	15	15	15	15	298	347	397	302	263	328	384	294	1350	1271	1345	1269	8	11	10	5	34	34	0	0	0	0
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690	76	52	56	51	16	15	15	15	15	15	15	15	1230	799	848	768	1151	770	825	750	16	15	15	15	15	15	15	1207	794	846	768	1142	769	824	749	3645	3496	3615	3484	61	39	49	36	185	185	0	0	0	0		
691	11	23	14	6	19	16	18	16	17	16	17	16	209	404	241	102	180	365	220	94	19	16	18	16	17	16	17	16	210	405	241	102	180	365	220	94	956	859	958	859	0	0	0	0	0	0	0	0	0	0	
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693	11	9	46	23	18	16	17	15	17	15	17	15	202	153	767	381	175	139	705	352	18	16	17	15	17	15	17	15	203	154	768	381	175	139	705	352	1504	1371	1505	1371	0	1	0	0	0	0	1	1	0	0	
694	41	84	0	0	21	17	19	16	19	16	19	16	850	1625	0	0	689	1367	0	0	20	17	19	16	19	16	19	16	837	1616	0	0	684	1364	0	0	2475	2056	2453	2048	17	0	0	0	17	17	0	0	0	0	
695	63	86	0	0	20	17	19	16	19	16	19	16	1260	1644	0	0	1043	1394	0	0	20	17	19	16	19	16	19	16	1257	1643	0	0	1042	1393	0	0	2904	2437	2900	2435	48	0	0	0	48	48	0	0	0	0	
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699	124	28	0	0	23	18	20	17	19	16	19	16	2849	561	0	0	2184	462	0	0	23	18	20	16	19	16	19	16	2820	559	0	0	2176	462	0	0	3410	2647	3379	2638	18	0	0	0	18	18	0	0	0	0	
700	143	24	0	0	20	17	19	16	19	16	19	16	2910	461	0	0	2393	390	0	0	20	17	19	16	19	16	19	16	2903	461	0	0	2390	390	0	0	3371	2783	3365	2780	38	0	0	0	38	38	0	0	0	0	
701	130	28	0	0	21	17	19	16	19	16	19	16	2755	546	0	0	2203	457	0	0	21	17	19	16	19	16	19	16	2705	542	0	0	2188	456	0	0	3300	2660	3247	2644	11	0	0	0	11	11	0	0	0	0	
702	52	13	0	0	19	16	19	16	19	16	19	16	991	245	0	0	842	209	0	0	19	16	19	16	19	16	19	16	991	245	0	0	842	209	0	0	1236	1051	1236	1051	21	0	0	0	0	21	21	0	0	0	0
703	142	12	0	0	20	16	19	16	19	16	19	16	2891	231	0	0	2338	194	0	0	20	16	19	16	19	16	19	16	2885	231	0	0	2338	194	0	0	3122	2533	3115	2532	63	0	0	0	63	63	0	0	0	0	
704	91	13	0	0	19	16	19	16	19	16	19	16	1727	245	0	0	1470	209	0	0	19	16	19	16	19	16	19	16	1727	245	0	0	1469	209	0	0	1972	1679	1971	1678	36	12	0	0	48	48	0	0	0	0	
705	74	13	0	0	17	15	17	15	17	15	17	15	1292	224	0	0	1116	195	0	0	17	15	17	15	17	15	17	15	1291	224	0	0	1115	195	0	0	1516	1311	1515	1310	48	0	0	0	48	48	0	0	0	0	
706	72	2	0	0	20	16	18	15	17	15	17	15	1435	36	0	0	1140	30	0	0	20	16	18	15	17	15	17	15	1430	36	0	0	1138	30	0	0	1471	1170	1466	1168	20	0	0	0	20	20	0	0	0	0	
707	69	1	0	0	20	16	18	15	17	15	17	15	1385	18	0	0	1097	15	0	0	20	16	18	15	17	15	17	15	1376	18	0	0	1093	15	0	0	1404	1112	1394	1108	0	0	0	0	0	0	0	0	0	0	
708	2	2	1	0	5	13	5	13	5	13	5	13	11	10	5	0	27	27	13	0	5	13	5	13	5	13	5	13	11	10	5	0	27	27	13	0	26	67	26	67	1	2	1	0	0	0	4	4	0	0	
709	7	3	0	6	7	13	6	13	5	13	5	13	48	17	0	31	91	38	0	76	7	13	6	13	5	13	5	13	48	17	0	31	91	38	0	76	95	204	95	204	7	3	0	2	12	12	0	0	0	0	
710	8	51	46	64	6	12	6	12	6	12	6	12	52																																						



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**Appendix A55.1 – Wider Air Quality Impacts**

Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)												With Proposed Scheme (2011)												Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change									
					µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre			µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties			µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre																	µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties	
	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>												
742	86	201	76	72	12	14	12	14	12	14	12	14	1021	2346	883	835	1241	2893	1093	1035	12	14	12	14	12	14	1021	2346	883	835	1241	2893	1093	1035	<b>5085</b>	<b>6263</b>	<b>5085</b>	<b>6263</b>	83	123	74	0	<b>0</b>	<b>0</b>	<b>280</b>	<b>280</b>	<b>0</b>	<b>0</b>		
743	81	76	40	7	13	15	13	15	12	15	12	15	1091	960	496	86	1209	1116	585	102	13	15	13	15	12	15	1090	959	495	86	1208	1116	584	102	<b>2633</b>	<b>3011</b>	<b>2631</b>	<b>3010</b>	53	30	8	0	<b>91</b>	<b>91</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
744	64	67	46	0	15	15	13	15	13	15	12	15	979	884	579	0	978	990	674	0	15	15	13	15	12	15	978	884	579	0	978	990	674	0	<b>2441</b>	<b>2642</b>	<b>2440</b>	<b>2642</b>	38	22	2	0	<b>62</b>	<b>0</b>	<b>0</b>	<b>62</b>	<b>0</b>	<b>0</b>		
745	124	140	163	86	14	15	13	15	12	15	12	15	1684	1772	2021	1059	1849	2055	2382	1255	14	15	13	15	12	15	1682	1772	2021	1059	1848	2054	2382	1255	<b>6536</b>	<b>7540</b>	<b>6533</b>	<b>7539</b>	106	84	102	44	<b>336</b>	<b>336</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
746	79	133	62	26	12	14	12	14	12	14	12	14	965	1575	727	304	1130	1891	880	369	12	14	12	14	12	14	964	1574	727	304	1130	1891	880	369	<b>3572</b>	<b>4270</b>	<b>3570</b>	<b>4269</b>	75	66	55	21	<b>217</b>	<b>217</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
747	49	167	120	77	12	15	12	14	12	14	12	14	594	1962	1397	894	711	2407	1727	1108	12	14	12	14	12	14	593	1961	1397	894	710	2407	1727	1108	<b>4846</b>	<b>5953</b>	<b>4845</b>	<b>5952</b>	40	125	69	10	<b>244</b>	<b>244</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
748	85	79	80	31	13	15	12	14	12	14	12	14	1147	961	943	362	1264	1147	1154	446	13	15	12	14	12	14	1142	959	942	361	1262	1147	1154	446	<b>3412</b>	<b>4012</b>	<b>3405</b>	<b>4010</b>	80	59	55	10	<b>204</b>	<b>204</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
749	46	33	43	36	11	14	10	14	10	14	10	14	522	339	429	356	644	452	586	490	11	14	10	14	10	14	515	338	428	355	642	452	586	490	<b>1645</b>	<b>2172</b>	<b>1636</b>	<b>2169</b>	36	27	24	26	<b>113</b>	<b>113</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
750	44	66	67	26	11	14	10	14	10	14	10	14	505	681	669	257	617	905	913	354	11	14	10	14	10	14	503	680	669	257	616	905	913	354	<b>2112</b>	<b>2790</b>	<b>2108</b>	<b>2788</b>	42	52	44	7	<b>145</b>	<b>145</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
751	41	7	0	0	21	17	18	16	17	16	17	16	879	128	0	0	697	111	0	0	21	17	18	16	17	16	874	127	0	0	695	111	0	0	<b>1007</b>	<b>808</b>	<b>1001</b>	<b>806</b>	6	1	0	0	<b>7</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
752	21	9	0	0	21	17	18	16	17	16	17	16	434	162	0	0	347	142	0	0	21	17	18	16	17	16	432	162	0	0	347	142	0	0	<b>596</b>	<b>490</b>	<b>594</b>	<b>489</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
753	94	5	0	0	18	16	17	16	17	15	17	15	1653	85	0	0	1478	78	0	0	18	16	17	16	17	15	1648	85	0	0	1475	78	0	0	<b>1738</b>	<b>1555</b>	<b>1733</b>	<b>1553</b>	30	0	0	0	<b>30</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
754	136	106	112	71	19	16	18	16	17	16	17	15	2610	1856	1908	1199	2206	1663	1741	1100	19	16	17	16	17	15	2566	1846	1904	1198	2194	1660	1740	1100	<b>7572</b>	<b>6710</b>	<b>7514</b>	<b>6694</b>	113	88	78	29	<b>308</b>	<b>308</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
755	51	37	8	10	19	16	17	16	17	16	17	15	947	641	136	169	816	578	124	155	18	16	17	16	17	15	937	639	136	168	812	577	124	155	<b>1892</b>	<b>1673</b>	<b>1880</b>	<b>1668</b>	11	8	0	0	<b>19</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
756	106	73	77	67	19	16	17	16	17	16	17	15	1973	1265	1307	1130	1693	1140	1195	1038	18	16	17	16	17	15	1949	1260	1305	1129	1687	1139	1195	1038	<b>5675</b>	<b>5066</b>	<b>5643</b>	<b>5058</b>	100	61	71	58	<b>290</b>	<b>290</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
757	125	114	116	57	19	16	17	16	17	16	17	15	2366	1987	1972	962	2014	1785	1802	883	19	16	17	16	17	15	2328	1976	1969	961	2003	1782	1801	883	<b>7287</b>	<b>6483</b>	<b>7234</b>	<b>6469</b>	64	67	72	19	<b>222</b>	<b>222</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
758	128	31	8	4	16	15	15	14	15	14	15	14	2023	479	123	61	1857	447	115	58	16	14	15	14	15	14	2015	479	123	61	1855	447	115	58	<b>2687</b>	<b>2477</b>	<b>2678</b>	<b>2475</b>	88	14	0	0	<b>102</b>	<b>102</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
759	61	54	8	4	16	15	15	14	15	14	15	14	963	835	123	61	885	779	115	58	16	14	15	14	15	14	960	834	123	61	884	778	115	58	<b>1983</b>	<b>1836</b>	<b>1978</b>	<b>1835</b>	38	11	5	4	<b>58</b>	<b>58</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
760	178	44	6	0	17	15	16	15	15	14	15	14	3023	696	93	0	2649	639	87	0	17	15	16	15	15	14	2961	691	93	0	2632	638	87	0	<b>3812</b>	<b>3375</b>	<b>3745</b>	<b>3357</b>	139	22	3	0	<b>164</b>	<b>164</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
761	81	38	0	0	19	15	16	15	16	14	15	14	1502	620	0	0	1237	556	0	0	18	15	16	15	16	14	1455	613	0	0	1227	555	0	0	<b>2121</b>	<b>1794</b>	<b>2067</b>	<b>1782</b>	14	12	0	0	<b>26</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
762	70	62	1	0	25	17	18	15	16	15	16	14	1740	1142	16	0	1177	935	15	0	24	17	18	15	16	14	1664	1119	16	0	1161	931	15	0	<b>2898</b>	<b>2127</b>	<b>2800</b>	<b>2107</b>	42	36	0	0	<b>78</b>	<b>78</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
763	20	44	15	9	19	16	13	14	11	14	10	13	381	559	160	90	311	614	203	120	18	15	12	14	11	13	10	358	541	158	90	306	611	202	120	<b>1190</b>	<b>1247</b>	<b>1147</b>	<b>1239</b>	3	11	0	0	<b>14</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
764	36	19	1	0	36	22	22	16	18	15	16	15	1282	425	18	0	775	313	15	0	33	21	21	16	17	15	16	15	1184	405	17	0	740	307	15	0	<b>1725</b>	<b>1103</b>	<b>1607</b>	<b>1062</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
765	43	14	59	20	24	17	18	15	16	15	16	14	1048	256	963	314	722	211	862	289	23	17	18	15	16	14	1007	251	957	313	712	210	861	289	<b>2581</b>	<b>2084</b>	<b>2528</b>	<b>2072</b>	24	10	49	18	<b>101</b>	<b>101</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
766	77	57	71	68	18	15	16	15	16	14	15	14	1381	918	1107	1049	1160	831	1026	980	17	15	16	15	16	14	1347	910	1103	1047	1153	830	1025	979	<b>4454</b>	<b>3996</b>	<b>4408</b>	<b>3987</b>	61	48	64	18	<b>191</b>	<b>191</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
767	165	17	58	0	17	15	17	15	17	15	17	15	2845	292	997	0	2474	255	868	0	17	15	17	15	17	15	2847	292	997	0	2474	255	868	0	<b>4135</b>	<b>3597</b>	<b>4136</b>	<b>3597</b>	75	0	0	0	<b>0</b>	<b>0</b>	<b>75</b>	<b>75</b>	<b>0</b>	<b>0</b>		
768	150	19	58	0	24	17	18	15	16	15	16	14	3655	347	947	0	2496	286	847	0	23	16	18	15	16	14	3501	340	940	0	2459	284	845	0	<b>4949</b>	<b>3629</b>	<b>4781</b>	<b>3589</b>	74	1	0	0	<b>75</b>	<b>75</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
769	177	78	107	0	26	17	20	16	18	15	18	15	4582	1558	1941	0	3034	1217	1624	0	25	17	20	16	18																									







**Aberdeen Western Peripheral Route  
Environmental Statement Appendices 2007  
Part E: Cumulative Assessment  
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Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)															With Proposed Scheme (2011)															Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change									
					µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre			µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties			µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre			µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre							NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties			NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>						
	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>																				
	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum																			
835	78	49	5	2	12	14	9	13	8	13	8	13	8	13	967	442	40	15	1124	657	66	26	12	14	9	13	8	13	8	13	938	436	40	15	1111	655	66	26	1464	1873	1429	1857	67	45	2	0	114	114	0	0	0	0				
836	85	90	0	0	20	16	19	16	19	16	19	16	19	16	1675	1713	0	0	1397	1455	0	0	20	16	19	16	19	16	19	16	1666	1710	0	0	1392	1454	0	0	3388	2852	3375	2846	49	10	0	0	59	59	0	0	0	0				
837	41	75	71	70	9	14	8	14	8	14	8	14	8	14	360	601	554	541	590	1063	1002	986	9	14	8	14	8	14	8	14	360	601	554	541	590	1063	1002	986	2057	3640	2056	3640	29	62	63	64	218	218	0	0	0	0				
838	33	47	16	18	9	14	8	14	8	14	8	14	8	14	297	380	125	139	476	666	226	254	9	14	8	14	8	14	8	14	297	380	125	139	476	666	226	254	941	1622	941	1622	27	27	1	3	58	58	0	0	0	0				
839	86	175	128	117	8	15	7	15	7	15	6	15	6	15	646	1178	833	754	1302	2616	1907	1741	7	15	7	15	7	15	6	15	645	1178	833	754	1302	2616	1907	1741	3411	7565	3410	7565	81	160	117	99	457	457	0	0	0	0				
840	52	68	44	43	8	15	7	15	7	15	6	15	6	15	390	458	286	277	787	1016	655	640	8	15	7	15	7	15	6	15	390	458	286	277	787	1016	655	640	1412	3099	1411	3099	46	54	29	34	163	163	0	0	0	0				
841	6	13	31	46	9	15	8	14	8	14	8	14	8	14	55	104	237	347	87	186	441	653	9	15	8	14	8	14	8	14	54	103	237	347	87	186	441	653	742	1367	740	1366	2	0	5	0	7	7	0	0	0	0				
842	0	1	0	0	8	15	6	14	5	14	5	14	5	14	0	0	0	0	14	0	0	0	8	15	6	14	5	14	5	14	0	0	0	0	0	14	0	0	0	6	14	6	14	0	0	0	0	0	0	0	0	0	0			
843	0	2	1	1	7	13	6	13	5	13	5	13	5	13	0	11	5	5	0	26	13	13	7	13	6	13	5	13	5	13	0	11	5	5	0	26	13	13	21	51	21	51	0	0	1	1	0	0	2	2	0	0				
844	3	1	0	0	9	14	8	14	8	14	8	14	8	14	27	8	0	0	43	14	0	0	9	15	8	14	8	14	8	14	27	8	0	0	44	14	0	0	35	58	35	58	3	1	0	0	0	0	4	4	0	0				
845	0	2	2	3	7	13	6	13	5	13	5	13	5	13	0	11	10	15	0	26	26	38	7	13	6	13	5	13	5	13	0	11	10	15	0	26	26	38	36	89	36	89	0	1	1	0	0	0	2	2	0	0				
846	0	1	0	2	10	14	8	13	8	13	8	13	8	13	0	8	0	15	0	13	0	27	10	14	8	13	8	13	8	13	0	8	0	15	0	13	0	27	24	40	24	40	0	1	0	2	0	0	3	3	0	0				
847	1	0	0	0	9	14	8	13	8	13	8	13	8	13	9	0	0	0	14	0	0	0	9	14	8	13	8	13	8	13	9	0	0	0	14	0	0	0	9	14	9	14	1	0	0	0	1	1	0	0	0	0				
848	0	0	0	0	9	14	8	13	8	13	8	13	8	13	0	0	0	0	0	0	0	0	9	14	8	13	8	13	8	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
849	0	0	0	0	13	14	10	14	9	13	9	13	9	13	0	0	0	0	0	0	0	0	12	14	10	13	9	13	9	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
850	0	0	0	0	10	14	9	13	9	13	9	13	9	13	0	0	0	0	0	0	0	0	10	14	9	13	9	13	9	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
851	0	0	0	0	10	13	7	12	6	12	6	12	6	12	0	0	0	0	0	0	0	0	9	12	7	12	6	12	6	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
852	0	0	0	4	9	13	9	13	8	13	8	13	8	13	0	0	0	33	0	0	0	52	9	13	9	13	8	13	8	13	0	0	0	33	0	0	0	52	33	52	33	52	0	0	0	0	0	0	0	0	0	0	0	0	0	
853	0	0	0	0	11	13	9	13	8	13	8	13	8	13	0	0	0	0	0	0	0	0	11	13	9	13	8	13	8	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
854	2	1	1	4	9	13	9	13	8	13	8	13	19	9	8	33	27	13	13	52	9	13	9	13	8	13	8	13	19	9	8	33	27	13	13	52	68	105	68	105	0	0	0	0	2	0	0	2	2	2	0	0				
855	6	1	0	0	9	13	9	13	8	13	8	13	13	56	9	0	0	80	13	0	0	9	13	9	13	8	13	8	13	56	9	0	0	80	13	0	0	65	93	65	93	2	0	0	0	0	0	2	2	0	0	0	0			
856	2	3	0	1	6	12	5	11	4	11	4	11	12	14	0	4	23	34	0	11	5	11	4	11	4	11	4	11	9	13	0	4	22	33	0	11	30	68	26	67	2	2	0	0	4	4	0	0	0	0	0	0	0			
857	15	19	17	19	7	12	5	11	5	11	4	11	100	96	77	84	175	214	190	212	5	11	5	11	4	11	4	11	75	86	74	82	170	212	189	211	356	791	318	783	1	5	6	10	22	22	0	0	0	0						
858	11	46	18	2	9	13	8	13	8	12	8	12	97	367	139	15	140	575	224	25	8	13	8	12	8	12	8	12	93	362	139	15	139	574	224	25	618	964	608	961	8	32	7	0	47	47	0	0	0	0						
859	10	19	2	0	9	13	8	12	8	12	8	12	88	151	15	0	127	237	25	0	8	13	8	12	8	12	8	12	81	148	15	0	125	236	25	0	254	389	245	387	6	1	0	0	7	7	0	0	0	0						
860	164	222	143	136	7	12	6	12	6	12	6	12	1197	1381	845	790	1983	2624	1680	1594	6	12	6	12	6	12	6	12	1053	1321	832	785	1950	2611	1677	1593	4213	7882	3991	7832	154	200	123	118	595	595	0	0	0	0						
861	5	22	12	0	14	10	13	8	13	8	12	70	213	100	0	72	285	151	0	13	14	9	13	8	13	8	12	67	208	99	0	71	284	151	0	383	508	374	505	0	0	0	0	0	0	0	0	0	0	0	0					
862	2	2	0	0	13	14	9	13	8	13	8	12	27	19	0	0	28	26	0	0	13	14	9	13	8	13	8	12	26	19	0	0	28	26	0	0	46	54	45	54	0	0	0	0	0	0	0	0	0	0	0	0				
863	10	15	6	0	13	14	9	13	8	13	8	12	132	141	49	0	136	192	75	0	13	14	9	13	8	13	8	12	127	138	49	0	135	191	75	0	323	403	314	401	4	7	0	0	11	11	0	0	0	0						
864	13	24	21	7	7	13	7	12	7	12	7	12	96	169	146	48	163	299	261	87	7	12	7	12	7	12	7	12	92	167	145	48	162	298	261	87	460	810	453	808	13	24	21	7	65	65	0	0	0	0						
865	4	0	0	1	5	11	4	11	4	11	4	11	20																																											







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Appendix A55.1 – Wider Air Quality Impacts**

Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)												With Proposed Scheme (2011)												Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change												
					µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre			µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties			µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre																	µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties	
	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>															
959	4	0	0	0	14	14	10	13	9	13	9	13	55	0	0	0	0	57	0	0	0	12	14	10	13	10	13	9	13	9	13	50	0	0	0	56	0	0	0	55	57	50	56	4	0	0	0	4	4	0	0	0	0
960	72	25	0	0	20	17	19	16	19	16	19	16	1470	481	0	0	0	1197	406	0	0	20	17	19	16	19	16	19	16	19	16	1467	481	0	0	1194	405	0	0	1952	1603	1948	1599	24	15	0	0	39	39	0	0	0	0
961	2	7	1	8	19	16	19	16	19	16	19	16	39	132	19	150	33	113	16	129	19	16	19	16	19	16	39	132	19	150	33	113	16	129	340	290	340	290	2	0	0	0	2	2	0	0	0	0					
962	111	24	0	0	20	16	19	16	19	16	19	16	2190	457	0	0	1803	387	0	0	20	16	19	16	19	16	19	16	2190	457	0	0	1803	387	0	0	2646	2190	2646	2190	61	8	0	0	0	0	0	0	69	69			
963	135	5	2	0	20	16	18	15	18	15	17	15	2748	91	35	0	2128	76	30	0	20	16	18	15	18	15	17	15	2754	91	35	0	2133	76	30	0	2874	2234	2880	2239	105	0	0	0	0	0	105	105	0	0			
964	42	5	2	0	21	16	18	15	18	15	17	15	878	92	35	0	669	76	30	0	21	16	18	15	18	15	17	15	877	92	35	0	670	76	30	0	1004	776	1004	776	11	0	0	0	11	0	0	11	0	0			
965	7	1	0	2	4	11	4	11	4	11	4	11	29	4	0	8	76	11	0	22	4	11	4	11	4	11	29	4	0	8	76	11	0	22	41	109	41	108	7	1	0	2	10	10	0	0	0	0					
966	0	0	0	0	12	14	10	14	10	14	10	14	0	0	0	0	0	0	0	0	11	14	10	14	10	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
967	2	1	0	0	16	15	12	14	10	14	10	14	31	12	0	0	30	14	0	0	15	15	12	14	10	14	10	14	30	12	0	0	30	14	0	0	43	44	42	44	0	1	0	0	1	1	0	0	0	0			
968	0	0	5	5	22	16	19	15	18	15	18	15	0	0	89	88	0	0	76	76	22	16	19	15	18	15	18	15	0	0	89	88	0	0	76	76	177	152	177	152	0	0	0	0	0	0	0	0	0	0			
969	0	0	7	7	23	17	19	16	18	15	18	15	0	0	126	123	0	0	107	107	22	17	19	16	18	15	18	15	0	0	125	123	0	0	107	107	249	214	248	214	0	0	0	0	0	0	0	0	0	0			
970	0	0	18	0	22	16	19	16	18	15	17	15	0	0	315	0	0	0	277	0	0	22	16	19	16	18	15	17	15	0	0	314	0	0	0	277	0	0	0	315	277	314	277	0	0	6	0	6	6	0	0	0	0
971	7	26	30	15	20	15	17	14	16	14	15	14	137	430	468	229	107	377	428	213	19	15	16	14	15	14	15	14	130	421	464	229	105	375	428	213	1264	1125	1245	1121	4	1	0	0	5	5	0	0	0	0			
972	0	0	9	13	9	13	6	12	5	11	4	11	0	0	42	57	0	0	103	148	10	13	6	12	5	11	4	11	0	0	43	57	0	0	103	148	99	251	100	251	0	0	4	6	0	0	10	10	0	0			
973	81	30	60	3	21	17	18	16	17	16	17	16	1689	545	1043	51	1356	479	946	47	21	17	18	16	17	16	17	1667	543	1042	51	1350	479	945	47	3329	2829	3303	2822	58	14	38	3	113	113	0	0	0	0				
974	37	138	142	140	10	14	10	14	9	14	9	14	374	1315	1331	1305	514	1887	1934	1904	10	14	10	14	9	14	9	14	373	1314	1330	1305	513	1887	1934	1904	4325	6239	4321	6238	32	119	113	102	366	366	0	0	0	0			
975	55	28	45	46	8	13	7	13	7	13	7	13	7	13	442	206	322	326	723	361	578	589	8	13	7	13	7	13	443	206	322	326	723	361	578	589	1296	2251	1296	2251	51	20	34	35	0	140	140	0	0	0	0		
976	42	49	63	44	8	13	7	13	7	13	7	13	328	357	449	311	548	631	808	564	8	13	7	13	7	13	7	13	328	357	449	311	548	631	808	564	1445	2551	1445	2551	32	37	44	31	144	0	0	144	0	0	0		
977	17	40	39	70	7	13	7	13	7	13	7	13	126	286	276	494	220	513	500	896	7	13	7	13	7	13	7	13	126	286	276	494	220	513	500	896	1183	2129	1183	2129	11	18	14	37	0	0	0	0	80	80			
978	112	125	102	136	7	13	7	13	7	13	7	13	831	895	723	961	1447	1604	1307	1741	7	13	7	13	7	13	7	13	831	895	723	961	1447	1604	1307	1741	3409	6099	3409	6099	107	120	102	110	0	0	0	0	439	439			
979	1	0	0	0	10	13	10	13	10	13	10	13	0	0	0	13	0	0	0	10	13	10	13	10	13	10	13	0	0	0	0	13	0	0	0	10	13	10	13	1	0	0	0	1	1	0	0	0	0	0	0		
980	0	0	6	56	6	12	6	12	6	12	6	12	0	0	34	317	0	0	73	679	7	12	6	12	6	12	0	0	34	317	0	0	73	679	351	751	352	751	0	0	0	41	0	0	41	41	0	0	0	0			
981	10	24	42	59	11	14	9	13	9	13	8	13	108	218	361	499	137	319	553	774	11	14	9	13	9	13	8	13	106	217	361	498	137	319	553	774	1186	1783	1183	1782	10	24	42	59	135	135	0	0	0	0			
982	0	0	0	0	12	14	10	14	9	13	9	13	0	0	0	0	0	0	0	0	11	14	10	14	9	13	9	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
983	2	1	2	3	4	10	3	10	2	10	2	10	9	3	5	7	21	10	20	30	3	10	2	10	2	10	6	2	5	7	20	10	20	30	23	80	19	80	2	1	2	3	8	8	0	0	0	0	0	0			
984	0	0	0	0	13	13	9	12	8	12	8	12	0	0	0	0	0	0	0	0	11	13	9	12	8	12	7	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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986	0	6	1	2	14	14	9	12	8	12	8	12	0	57	8	15	0	75	12	24	12	13	9	12	8	12	7	12	0	53	8	15	0	74	12	24	80	111	76	110	0	0	0	0	0	0	0	0	0	0	0	0	
987	1	0	0	0	14	14	10	12	8	12	8	12	14	0	0	0	14	0	0	0	14	14	9	12	8	12	8	12	14	0	0	0	14	0	0	0	14	14	14	14	1	0	0	0	1	1	0	0	0	0	0	0	
988	3	4	8	4	10	12	6	11	5	11	5	11	30	25	40	19	36	44	87	43	8	12	6	11	5	11	5	11	25	23	39	18	35	44	86	43	114	210	104	208	3	0	0	0	3	3	0	0	0	0			
989	0	3	7	3	4	11	4	11	4	11	4	11	0	13	31	13	0	32	75	32	4	11	4	11	4	11	4	11	0	13	31	13	0	32	75	32	57	140	57	140	0	0	0	0	0	0	0	0	0	0	0	0	

**Aberdeen Western Peripheral Route**  
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Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)										With Proposed Scheme (2011)										Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change															
					µg/m <sup>3</sup> 20 m from Road Centre		µg/m <sup>3</sup> 70 m from Road Centre		µg/m <sup>3</sup> 115 m from Road Centre		µg/m <sup>3</sup> 175 m from Road Centre		NO <sub>2</sub> Conc Multiplied by Number of Properties		PM <sub>10</sub> Conc Multiplied by Number of Properties		µg/m <sup>3</sup> 20 m from Road Centre		µg/m <sup>3</sup> 70 m from Road Centre		µg/m <sup>3</sup> 115 m from Road Centre		µg/m <sup>3</sup> 175 m from Road Centre																NO <sub>2</sub> Conc Multiplied by Number of Properties		PM <sub>10</sub> Conc Multiplied by Number of Properties											
	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	Sum NO <sub>2</sub>	Sum PM <sub>10</sub>	Sum NO <sub>2</sub>	Sum PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>										
990	0	6	8	4	11	12	7	11	5	11	5	11	0	40	41	19	0	67	87	43	9	12	6	11	5	11	5	11	5	11	0	36	40	18	0	67	87	43	<b>100</b>	<b>198</b>	<b>94</b>	<b>196</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
991	4	3	1	1	5	11	5	11	4	11	4	11	19	14	4	4	43	32	11	11	5	11	5	11	4	11	4	11	19	14	4	4	43	32	11	11	<b>42</b>	<b>97</b>	<b>42</b>	<b>97</b>	2	0	0	0	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
992	19	42	38	26	11	12	7	11	5	11	5	11	214	280	197	122	237	472	414	281	9	12	6	11	5	11	5	11	179	253	188	119	228	466	412	280	<b>812</b>	<b>1404</b>	<b>739</b>	<b>1387</b>	3	0	0	0	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
993	0	3	8	4	5	11	5	11	4	11	4	11	0	14	35	18	0	32	86	43	5	11	4	11	4	11	4	11	0	13	35	18	0	32	86	43	<b>66</b>	<b>161</b>	<b>66</b>	<b>161</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
994	0	0	0	0	5	11	5	11	4	11	4	11	0	0	0	0	0	0	0	0	5	11	5	11	4	11	4	11	0	0	0	0	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			
995	16	30	25	15	5	11	5	11	4	11	4	11	77	135	111	66	173	323	268	161	5	11	5	11	4	11	4	11	77	135	111	66	173	323	268	161	<b>390</b>	<b>926</b>	<b>390</b>	<b>926</b>	11	24	15	5	<b>55</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
996	14	19	18	14	5	11	5	11	4	11	4	11	68	86	80	62	152	204	193	150	5	11	5	11	4	11	4	11	68	86	80	62	152	204	193	150	<b>295</b>	<b>700</b>	<b>295</b>	<b>700</b>	9	5	7	4	<b>25</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
997	24	37	46	48	5	11	5	11	4	11	4	11	127	172	206	212	263	399	495	515	5	11	5	11	4	11	4	11	127	172	206	212	263	399	495	515	<b>716</b>	<b>1672</b>	<b>716</b>	<b>1672</b>	22	34	42	47	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>145</b>	<b>145</b>		
998	0	1	0	0	7	11	6	11	6	11	6	11	0	6	0	0	0	11	0	0	6	11	6	11	6	11	6	11	0	6	0	0	0	11	0	0	<b>6</b>	<b>11</b>	<b>6</b>	<b>11</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
999	1	1	0	0	13	13	8	12	7	11	7	11	13	8	0	0	13	12	0	0	11	13	8	12	7	11	6	11	11	8	0	0	13	12	0	0	<b>22</b>	<b>25</b>	<b>19</b>	<b>24</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1000	7	4	1	0	13	13	8	12	7	11	7	11	91	34	7	0	92	47	11	0	11	13	8	12	7	11	6	11	78	31	7	0	88	47	11	0	<b>131</b>	<b>151</b>	<b>116</b>	<b>147</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1001	0	0	0	0	9	12	8	12	8	12	8	12	0	0	0	0	0	0	0	0	9	12	8	12	8	12	8	12	0	0	0	0	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			
1002	0	2	4	1	9	12	8	12	7	12	7	12	0	16	30	7	0	24	48	12	9	12	8	12	7	12	7	12	0	16	30	7	0	24	48	12	<b>53</b>	<b>84</b>	<b>53</b>	<b>84</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1003	0	19	8	4	8	12	7	12	7	12	7	12	0	140	58	29	0	227	95	48	7	12	7	12	7	12	7	12	0	139	58	29	0	227	95	48	<b>227</b>	<b>370</b>	<b>227</b>	<b>369</b>	0	4	0	0	<b>4</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1004	0	16	11	5	9	12	8	12	7	12	7	12	0	126	82	37	0	193	131	60	9	12	8	12	7	12	7	12	0	125	82	37	0	193	131	60	<b>244</b>	<b>384</b>	<b>244</b>	<b>384</b>	0	9	2	1	<b>12</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1005	36	35	40	65	9	12	8	12	7	12	7	12	318	267	291	465	425	406	462	749	9	12	8	12	7	12	7	12	321	267	291	465	426	406	462	750	<b>1340</b>	<b>2043</b>	<b>1345</b>	<b>2044</b>	29	14	8	4	<b>0</b>	<b>0</b>	<b>55</b>	<b>55</b>	<b>0</b>	<b>0</b>		
1006	5	1	1	0	5	11	4	11	4	11	4	11	26	4	4	0	54	11	11	0	5	11	4	11	4	11	4	11	26	4	4	0	54	11	11	0	<b>35</b>	<b>76</b>	<b>35</b>	<b>76</b>	5	1	1	0	<b>7</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1007	14	3	0	0	9	12	8	12	8	12	8	12	125	24	0	0	169	36	0	0	9	12	8	12	8	12	8	12	126	24	0	0	169	36	0	0	<b>149</b>	<b>205</b>	<b>149</b>	<b>205</b>	11	0	0	0	<b>0</b>	<b>0</b>	<b>11</b>	<b>11</b>	<b>0</b>	<b>0</b>		
1008	8	1	2	0	4	11	4	10	4	10	4	10	33	4	7	0	84	10	21	0	4	11	4	10	4	10	4	10	32	4	7	0	84	10	21	0	<b>44</b>	<b>116</b>	<b>43</b>	<b>116</b>	5	0	1	0	<b>6</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1009	8	1	0	1	6	11	6	11	6	11	6	11	51	6	0	6	91	11	0	11	6	11	6	11	6	11	6	11	48	6	0	6	90	11	0	11	<b>63</b>	<b>113</b>	<b>60</b>	<b>112</b>	4	1	0	1	<b>6</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1010	6	1	0	0	5	11	5	11	5	11	5	11	28	5	0	0	65	11	0	0	5	11	5	11	5	11	5	11	28	5	0	0	64	11	0	0	<b>33</b>	<b>75</b>	<b>33</b>	<b>75</b>	3	0	0	0	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1011	11	1	0	0	5	11	5	11	5	11	5	11	51	5	0	0	118	11	0	0	5	11	5	11	5	11	5	11	55	5	0	0	120	11	0	0	<b>55</b>	<b>129</b>	<b>60</b>	<b>130</b>	9	0	0	0	<b>0</b>	<b>0</b>	<b>9</b>	<b>9</b>	<b>0</b>	<b>0</b>		
1012	2	1	1	0	3	10	3	10	3	10	3	10	7	3	3	0	21	10	10	0	3	10	3	10	3	10	3	10	7	3	3	0	21	10	10	0	<b>13</b>	<b>41</b>	<b>13</b>	<b>41</b>	2	1	1	0	<b>4</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1013	27	43	8	0	4	11	4	11	4	11	4	11	107	158	29	0	291	462	86	0	4	11	4	11	4	11	4	11	105	157	29	0	291	462	86	0	<b>293</b>	<b>839</b>	<b>291</b>	<b>839</b>	26	23	3	0	<b>52</b>	<b>52</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1014	15	5	5	1	2	10	2	10	2	10	2	10	29	9	9	2	144	48	48	10	2	10	2	10	2	10	2	10	28	9	9	2	144	48	48	10	<b>49</b>	<b>250</b>	<b>47</b>	<b>249</b>	15	5	5	1	<b>26</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1015	0	0	0	1	9	12	5	11	4	11	4	11	0	0	0	4	0	0	0	11	10	12	6	11	4	11	4	11	0	0	0	4	0	0	11	4	11	4	<b>11</b>	<b>4</b>	<b>11</b>	<b>4</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
1016	0	0	0	6	4	11	4	11	4	11	4	11	0	0	0	24	0	0	0	63	4	11	4	11	4	11	4	11	0	0	0	24	0	0	0	63	<b>24</b>	<b>63</b>	<b>24</b>	<b>63</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1017	0	0	0	6	4	11	4	11	4	11	4	11	0	0	0	23	0	0	0	63	4	11	4	11	4	11	4	11	0	0	0	23	0	0	0	63	<b>23</b>	<b>63</b>	<b>23</b>	<b>63</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1018	7	0	1	0	2	10	2	10	2	10	2	10	17	0	2	0	69	0	10	0	2	10	2	10	2	10	2	10	17	0	2	0	69	0	10	0	<b>20</b>	<b>79</b>	<b>20</b>	<b>79</b>	6	0	1	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>7</b>		
1019	5	0	0	0	5	11	4	11	4	11	4																																									











**Aberdeen Western Peripheral Route**  
**Environmental Statement Appendices 2007**  
**Part E: Cumulative Assessment**  
**Appendix A55.1 – Wider Air Quality Impacts**

Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)												With Proposed Scheme (2011)												Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change													
					µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre			µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties			µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre																	µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties		
	0-50	50-100	100-150	150-200	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>																		
	0-50	50-100	100-150	150-200	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>																		
1145	3	3	32	14	19	16	17	15	17	15	17	15	17	15	56	51	534	232	48	46	491	214	19	16	17	15	17	15	17	15	17	15	56	51	535	232	48	46	491	214	<b>873</b>	<b>799</b>	<b>874</b>	<b>799</b>	2	0	0	0	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>
1146	14	0	19	2	20	17	18	16	17	15	17	15	283	0	321	33	232	0	292	31	20	17	18	16	17	15	17	15	283	0	321	33	232	0	292	31	<b>637</b>	<b>555</b>	<b>637</b>	<b>555</b>	1	0	0	0	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>				
1147	18	0	1	32	20	16	17	16	17	15	17	15	354	0	17	532	295	0	15	490	20	16	17	16	17	15	17	15	354	0	17	532	295	0	15	490	<b>903</b>	<b>801</b>	<b>903</b>	<b>800</b>	17	0	0	0	<b>17</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
1148	28	81	34	95	21	17	18	16	17	16	17	16	584	1461	585	1610	466	1281	530	1474	21	17	18	16	17	16	17	16	581	1458	585	1610	465	1280	530	1474	<b>4241</b>	<b>3751</b>	<b>4234</b>	<b>3749</b>	19	51	28	14	<b>112</b>	<b>112</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
1149	44	35	17	10	21	17	18	16	17	16	17	16	913	630	292	169	730	553	265	155	21	17	18	16	17	16	17	16	908	629	292	169	729	553	265	155	<b>2005</b>	<b>1703</b>	<b>1998</b>	<b>1702</b>	30	12	3	0	<b>45</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
1150	39	69	31	2	16	15	15	15	15	14	15	14	608	1053	470	30	572	1003	449	29	16	15	15	15	14	15	14	608	1053	470	30	572	1003	449	29	<b>2162</b>	<b>2054</b>	<b>2161</b>	<b>2053</b>	34	46	10	1	<b>91</b>	<b>91</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>					
1151	214	141	88	13	12	14	12	14	11	14	11	13	2556	1629	1007	148	2912	1907	1188	175	12	14	12	14	11	13	2557	1629	1007	148	2913	1907	1188	175	<b>5340</b>	<b>6183</b>	<b>5341</b>	<b>6184</b>	189	120	45	0	<b>0</b>	<b>0</b>	<b>354</b>	<b>354</b>	<b>0</b>	<b>0</b>						
1152	196	126	54	13	15	15	15	14	15	14	15	14	2993	1911	817	197	2849	1827	782	188	15	15	14	15	14	15	14	2985	1909	817	197	2846	1826	782	188	<b>5918</b>	<b>5646</b>	<b>5908</b>	<b>5643</b>	155	98	38	9	<b>300</b>	<b>300</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>					
1153	104	70	27	6	16	15	15	15	15	15	14	1672	1078	411	91	1529	1018	392	87	16	15	15	15	15	14	1672	1078	411	91	1530	1018	392	87	<b>3251</b>	<b>3026</b>	<b>3252</b>	<b>3027</b>	101	51	11	6	<b>0</b>	<b>0</b>	<b>169</b>	<b>169</b>	<b>0</b>	<b>0</b>							
1154	1	1	1	0	21	16	15	14	13	14	13	14	21	15	13	0	16	14	14	0	21	16	15	14	13	14	21	15	13	0	16	14	14	0	<b>50</b>	<b>44</b>	<b>49</b>	<b>44</b>	1	1	0	0	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>						
1155	0	0	0	0	13	14	12	14	12	14	12	14	0	0	0	0	0	0	0	0	12	14	12	14	12	14	0	0	0	0	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>						
1156	0	0	0	0	13	14	12	14	12	14	12	14	0	0	0	0	0	0	0	0	12	14	12	14	12	14	0	0	0	0	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>						
1157	0	0	1	0	13	14	13	14	12	14	12	14	0	0	12	0	0	0	14	0	13	14	12	14	12	14	0	0	12	0	0	0	14	0	<b>12</b>	<b>14</b>	<b>12</b>	<b>14</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>						
1158	0	0	0	0	13	14	12	14	12	14	12	14	0	0	0	0	0	0	0	0	13	14	12	14	12	14	0	0	0	0	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>						
1159	0	0	0	12	18	15	16	14	15	14	15	14	0	0	0	183	0	0	0	170	19	15	16	14	15	14	0	0	0	0	183	0	0	0	<b>171</b>	<b>183</b>	<b>170</b>	<b>183</b>	<b>171</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>					
1160	11	15	25	13	15	15	13	15	13	14	13	14	163	198	318	163	167	218	359	186	15	15	13	14	13	14	160	196	317	163	165	217	359	186	<b>841</b>	<b>930</b>	<b>837</b>	<b>927</b>	6	8	1	0	<b>15</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>						
1161	65	34	19	15	14	15	13	14	13	14	13	14	908	439	240	188	963	491	272	214	14	15	13	14	13	14	879	435	239	188	950	489	272	214	<b>1775</b>	<b>1941</b>	<b>1740</b>	<b>1926</b>	59	23	13	4	<b>99</b>	<b>99</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>						
1162	134	64	21	6	20	16	18	16	18	16	18	16	2700	1179	376	107	2199	1016	330	94	20	16	18	16	18	16	2644	1170	375	106	2180	1014	330	94	<b>4362</b>	<b>3640</b>	<b>4296</b>	<b>3618</b>	126	26	13	0	<b>165</b>	<b>165</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>						
1163	2	0	0	0	19	16	18	15	18	15	17	15	39	0	0	0	31	0	0	0	19	16	18	15	18	15	17	39	0	0	0	31	0	0	0	<b>39</b>	<b>31</b>	<b>39</b>	<b>31</b>	1	0	0	0	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>					
1164	1	28	3	9	20	16	18	16	17	16	17	16	20	497	51	152	16	441	47	140	20	16	18	16	17	16	20	498	51	152	16	441	47	140	<b>720</b>	<b>644</b>	<b>722</b>	<b>644</b>	1	6	0	0	<b>0</b>	<b>0</b>	<b>7</b>	<b>7</b>	<b>0</b>	<b>0</b>						
1165	100	37	0	0	21	17	20	16	19	16	19	16	2125	722	0	0	1704	605	0	0	21	17	19	16	19	16	2107	719	0	0	1697	604	0	0	<b>2846</b>	<b>2309</b>	<b>2826</b>	<b>2301</b>	47	12	0	0	<b>59</b>	<b>59</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>						
1166	86	18	0	0	20	17	19	16	19	16	19	16	1756	346	0	0	1442	293	0	0	20	17	19	16	19	16	1737	345	0	0	1435	292	0	0	<b>2103</b>	<b>1735</b>	<b>2082</b>	<b>1728</b>	0	0	0	0	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>						
1167	84	2	0	0	20	16	18	15	18	15	17	15	1721	36	0	0	1351	31	0	0	20	16	18	15	18	15	17	15	1716	36	0	0	1348	31	0	0	<b>1758</b>	<b>1381</b>	<b>1752</b>	<b>1379</b>	32	2	0	0	<b>34</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
1168	88	151	8	0	13	14	10	13	9	13	8	13	1179	1494	71	0	1236	1988	103	0	13	14	10	13	9	13	8	13	1144	1474	70	0	1226	1982	103	0	<b>2743</b>	<b>3327</b>	<b>2688</b>	<b>3311</b>	85	137	5	0	<b>227</b>	<b>227</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
1169	26	21	3	0	9	13	9	13	9	13	9	13	232	182	26	0	349	280	40	0	9	13	9	13	9	13	231	181	26	0	348	280	40	0	<b>439</b>	<b>668</b>	<b>438</b>	<b>668</b>	10	7	0	0	<b>17</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>						
1170	34	55	51	34	14	15	10	14	9	13	9	13	472	563	465	298	499	753	685	454	13	14	10	14	9	13	9	13	434	542	458	296	488	748	683	453	<b>1797</b>	<b>2391</b>	<b>1730</b>	<b>2372</b>	31	42	38	21	<b>132</b>	<b>132</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
1171	11	17	15	10	10	14	9	13	9	13	9	13	111	153	130	86	152	228	200	133	10	14	9	13	9	13	110	153	130	86	151	228	200	133	<b>480</b>	<b>713</b>	<b>479</b>	<b>713</b>	8	11	6	3	<b>28</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>						
1172	7																																																					





















**Aberdeen Western Peripheral Route**  
**Environmental Statement Appendices 2007**  
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**Appendix A55.1 – Wider Air Quality Impacts**

Link Number	Number of Residential Properties Within the Distance Bands				Without Proposed Scheme (2011)										With Proposed Scheme (2011)										Without Scheme		With Scheme		Residential Properties Within the Distance Bands Without Any Double-Counting				Number of Properties Better		Number of Properties Worse		Number of Properties No Change														
					µg/m <sup>3</sup> 20 m from Road Centre		µg/m <sup>3</sup> 70 m from Road Centre		µg/m <sup>3</sup> 115 m from Road Centre		µg/m <sup>3</sup> 175 m from Road Centre		NO <sub>2</sub> Conc Multiplied by Number of Properties		PM <sub>10</sub> Conc Multiplied by Number of Properties		µg/m <sup>3</sup> 20 m from Road Centre		µg/m <sup>3</sup> 70 m from Road Centre		µg/m <sup>3</sup> 115 m from Road Centre		µg/m <sup>3</sup> 175 m from Road Centre																NO <sub>2</sub> Conc Multiplied by Number of Properties		PM <sub>10</sub> Conc Multiplied by Number of Properties										
	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	Sum NO <sub>2</sub>	Sum PM <sub>10</sub>	Sum NO <sub>2</sub>	Sum PM <sub>10</sub>	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>									
1455	5	1	0	0	6	11	4	11	4	11	4	11	32	4	0	0	56	11	0	0	3	11	3	11	3	11	3	11	17	3	0	0	53	11	0	0	36	67	21	63					3	3					
1456	30	13	17	6	6	11	4	11	4	11	4	11	192	58	66	22	342	142	184	65	4	11	4	11	4	11	4	11	107	46	61	21	322	139	182	64	337	732	236	708					43	43					
1457	119	52	59	32	8	12	5	11	4	11	4	11	971	261	237	118	1403	570	634	342	3	11	3	11	3	11	3	11	415	181	206	112	1265	553	627	340	1587	2948	914	2785					233	227					
1458	11	8	4	6	5	14	5	14	5	14	5	14	59	41	20	30	156	113	56	84	5	14	5	14	5	14	5	14	55	40	20	30	155	113	56	84	150	409	146	408					26	26					
1459	0	0	0	0	6	11	5	11	5	11	5	11	0	0	0	0	0	0	0	0	5	11	5	11	5	11	5	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1460	16	47	25	18	6	11	5	11	4	11	4	11	96	227	112	78	182	523	276	199	4	11	4	11	4	11	4	11	69	202	107	77	176	518	276	198	513	1181	455	1168					0	0					
1461	20	6	6	5	4	10	3	10	2	10	2	10	75	16	14	11	203	60	60	50	2	10	2	10	2	10	2	10	42	13	13	11	198	59	59	50	116	372	78	366					36	36					
1462	0	0	1	2	11	13	7	11	5	11	5	11	0	0	5	10	0	0	11	22	5	11	5	11	5	11	5	11	0	0	5	9	0	0	11	22	15	33	14	33					3	3					
1463	9	73	24	20	11	12	7	11	5	11	5	11	95	480	127	98	111	828	265	219	5	11	5	11	5	11	5	11	42	338	111	93	98	797	262	218	800	1424	583	1376					0	0					
1464	2	0	0	0	6	14	5	14	5	14	5	14	12	0	0	0	29	0	0	0	5	14	5	14	5	14	5	14	10	0	0	0	28	0	0	0	12	29	10	28					1	1					
1465	3	1	0	0	8	16	6	16	5	15	5	15	24	6	0	0	49	16	0	0	5	15	5	15	5	15	5	15	14	5	0	0	46	15	0	0	30	64	18	61					2	2					
1466	32	5	1	3	6	16	4	15	4	15	3	15	182	20	4	10	505	77	15	46	3	15	3	15	3	15	3	15	108	17	3	10	489	76	15	46	217	644	138	626					29	29					
1467	0	0	1	1	15	14	10	12	8	12	7	12	0	0	8	7	0	0	12	12	7	12	7	12	7	12	7	12	0	0	7	7	0	0	12	12	15	24	14	24					0	0					
1468	0	1	1	2	8	12	7	12	7	12	7	12	0	7	7	14	0	12	12	24	7	12	7	12	7	12	7	12	0	7	7	14	0	12	12	24	28	47	28	47					1	1					
1469	0	0	0	2	13	13	9	12	8	12	7	12	0	0	0	15	0	0	0	24	7	12	7	12	7	12	7	12	0	0	0	14	0	0	0	24	15	24	14	24					0	0					
1470	0	2	1	1	12	13	8	12	8	12	7	12	0	17	8	7	0	24	12	12	7	12	7	12	7	12	7	12	0	14	7	7	0	24	12	12	32	48	28	47					0	0					
1471	0	0	1	1	12	13	9	12	8	12	7	12	0	8	7	0	12	12	12	12	7	12	7	12	7	12	7	12	0	0	7	7	0	12	12	12	15	24	14	24					0	0					
1472	0	0	0	0	11	14	7	13	6	12	6	12	0	0	0	0	0	0	0	0	6	12	6	12	6	12	6	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1473	38	35	29	31	4	12	3	12	3	12	3	12	150	109	84	87	447	406	335	357	3	12	3	12	3	12	3	12	105	97	80	86	438	403	334	357	429	1545	367	1532					133	133					
1474	6	6	2	0	5	13	3	13	3	13	3	13	29	20	6	0	79	78	26	0	3	13	3	13	3	13	3	13	16	16	5	0	77	77	26	0	56	183	38	179					12	12					
1475	11	4	2	1	8	16	6	16	5	15	5	15	88	22	10	5	177	62	31	15	5	15	5	15	5	15	5	15	50	18	9	5	168	61	31	15	125	285	82	275					17	17					
1476	0	0	0	0	11	13	8	12	7	12	7	12	0	0	0	0	0	0	0	0	7	12	7	12	7	12	7	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1477	0	1	1	1	12	13	9	12	8	12	7	12	0	9	8	7	0	12	12	12	7	12	7	12	7	12	7	12	0	7	7	7	0	12	12	12	23	36	21	35					0	0					
1478	0	0	0	1	14	14	9	12	8	12	7	12	0	0	0	7	0	0	0	12	7	12	7	12	7	12	7	12	0	0	0	7	0	0	0	12	7	12	7	12					0	0					
1479	0	0	0	0	7	12	7	12	7	12	7	12	0	0	0	0	0	0	0	0	7	12	7	12	7	12	7	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1480	0	0	0	0	22	16	18	15	17	15	16	15	0	0	0	0	0	0	0	0	16	15	16	15	16	15	16	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1481	2	39	41	32	14	14	10	13	9	12	8	12	27	386	359	268	28	497	510	396	8	12	8	12	8	12	8	12	16	318	335	261	25	480	505	394	1040	1430	930	1403					94	94					
1482	11	9	3	1	3	11	3	10	3	10	3	10	33	25	8	3	116	94	31	10	3	10	3	10	3	10	3	10	29	24	8	3	115	94	31	10	68	251	63	250					0	0					
1483	110	57	18	0	17	15	16	15	16	15	15	15	1900	907	279	0	1667	841	263	0	15	15	15	15	15	15	15	15	1685	873	276	0	1604	831	262	0	3086	2771	2834	2697					140	140					
1484	82	71	81	0	18	16	17	15	17	15	17	15	1499	1209	1350	0	1311	1099	1242	0	16	15	16	15	16	15	16	15	1352	1171	1336	0	1252	1084	1237	0	4058	3652	3859	3573					38	38					
1485	0	0	0	0	6	12	5	12	5	12	5	12	0	0	0	0	0	0	0	0	5	12	5	12	5	12	5	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0







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					µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre			µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties			PM <sub>10</sub> Conc Multiplied by Number of Properties			µg/m <sup>3</sup> 20 m from Road Centre			µg/m <sup>3</sup> 70 m from Road Centre																	µg/m <sup>3</sup> 115 m from Road Centre			µg/m <sup>3</sup> 175 m from Road Centre			NO <sub>2</sub> Conc Multiplied by Number of Properties		
	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	0-50	50-100	100-150	150-200	0-50	50-100	100-150	150-200	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>	NO <sub>2</sub>	PM <sub>10</sub>													
1548	0	2	0	0	12	13	9	12	8	12	7	12	0	17	0	0	0	0	24	0	0	12	7	12	7	12	7	12	7	12	7	12	0	14	0	0	24	0	0	17	24	14	24	0	0	0	0				
1549	0	0	0	1	9	12	8	12	7	12	7	12	0	0	0	7	0	0	7	0	0	12	7	12	7	12	7	12	7	12	7	12	0	0	0	7	0	0	12	7	12	7	12	0	0	0	0				
1550	15	3	0	0	9	12	8	12	7	12	7	12	132	23	0	0	177	35	0	0	7	12	7	12	7	12	7	12	7	12	106	21	0	0	173	35	0	0	155	212	128	207	0	0	0	0					
1551	0	0	0	1	10	13	8	13	8	13	8	13	0	0	0	8	0	0	0	13	8	13	8	13	8	13	8	13	8	13	0	0	0	8	0	0	0	13	8	13	8	13	1	1	0	0					
1552	0	0	0	1	11	14	9	13	8	13	8	13	0	0	0	8	0	0	0	13	8	13	8	13	8	13	8	13	8	13	0	0	0	8	0	0	0	13	8	13	8	13	0	0	0	0					
1553	0	0	0	0	10	13	8	13	8	13	8	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
1554	4	1	1	22	17	15	12	14	11	13	11	13	69	12	11	231	59	14	13	289	10	13	10	13	10	13	10	13	41	10	10	225	52	13	13	288	324	375	286	367	26	26	0	0							
1555	0	3	0	0	10	13	8	12	7	12	7	12	0	24	0	0	0	36	0	0	7	12	7	12	7	12	7	12	7	12	0	21	0	0	0	35	0	0	24	36	21	35	0	0	0	0					
1556	0	3	0	0	17	15	10	13	8	12	7	12	0	31	0	0	0	38	0	0	7	12	7	12	7	12	7	12	7	12	0	21	0	0	0	35	0	0	31	38	21	35	0	0	0	0					
1557	0	0	0	1	10	13	8	13	8	13	8	13	0	0	0	8	0	0	0	13	8	13	8	13	8	13	8	13	0	0	0	8	0	0	0	13	8	13	8	13	0	0	0	0							
1558	0	0	0	1	10	13	8	13	8	13	8	13	0	0	0	8	0	0	0	13	8	13	8	13	8	13	8	13	0	0	0	8	0	0	0	13	8	13	8	13	0	0	0	0							
1559	0	0	0	0	10	13	8	13	8	13	8	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
1560	5	1	0	0	3	11	3	11	3	11	3	11	17	3	0	0	53	11	0	0	5	11	4	11	4	11	4	11	25	4	0	0	54	11	0	0	21	63	29	65	0	0	0	0							
1561	10	8	4	6	3	13	3	13	3	13	3	13	30	24	12	18	129	103	52	77	3	13	3	13	3	13	3	13	33	25	12	18	130	103	52	77	83	361	88	362	0	0	0	0							
1562	0	0	0	0	5	15	5	15	5	15	5	15	0	0	0	0	0	0	0	0	5	15	5	15	5	15	5	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
1563	0	0	0	0	7	12	7	12	7	12	7	12	0	0	0	0	0	0	0	0	12	13	8	12	8	12	7	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1564	0	0	1	1	7	12	7	12	7	12	7	12	0	0	7	7	0	0	12	12	12	12	12	12	8	12	8	12	7	12	0	0	8	7	0	0	12	12	14	24	15	24	0	0	0	0					
1565	37	36	29	31	3	12	3	12	3	12	3	12	102	99	80	86	426	415	334	357	4	12	3	12	3	12	3	12	141	111	83	87	434	417	335	357	367	1532	422	1543	0	0	0	0							
1566	5	6	2	0	3	13	3	13	3	13	3	13	14	16	5	0	64	77	26	0	3	13	3	13	3	13	3	13	17	18	6	0	65	77	26	0	35	166	40	167	0	0	0	0							
1567	0	0	0	0	16	15	16	15	16	15	16	15	0	0	0	0	0	0	0	0	22	16	18	15	17	15	16	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1568	2	36	41	32	8	12	8	12	8	12	8	12	16	294	335	261	25	443	505	394	13	14	10	13	9	12	8	12	26	348	356	267	27	457	510	395	906	1366	997	1389	0	0	0	0							
1569	11	9	3	1	3	10	3	10	3	10	3	10	29	24	8	3	115	94	31	10	3	11	3	10	3	10	3	10	33	25	8	3	116	94	31	10	63	250	68	252	23	23	0	0							
1570	110	57	18	0	15	15	15	15	15	15	15	15	1685	873	276	0	1604	831	262	0	17	15	16	15	15	15	15	1894	906	279	0	1666	840	263	0	2834	2697	3079	2770	0	0	0	0								
1571	82	71	81	0	16	15	16	15	16	15	16	15	1352	1171	1336	0	1252	1084	1237	0	18	16	17	15	17	15	17	15	1474	1202	1348	0	1300	1096	1241	0	3859	3573	4024	3638	0	0	0	0							
1572	0	0	0	0	5	12	5	12	5	12	5	12	0	0	0	0	0	0	0	0	5	12	5	12	5	12	5	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1573	0	0	0	0	8	13	8	13	8	13	8	13	0	0	0	0	0	0	0	0	11	14	9	13	8	13	8	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1574	0	0	0	0	8	13	8	13	8	13	8	13	0	0	0	0	0	0	0	0	12	14	9	13	8	13	8	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1575	0	0	0	0	8	13	8	13	8	13	8	13	0	0	0	0	0	0	0	0	11	14	9	13	8	13	8	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1576	1	0	0	0	5	12	5	12	5	12	5	12	5	0	0	0	12	0	0	0	8	12	6	12	6	12	6	12	8	0	0	0	12	0	0	0	5	12	8	12	0	0	0	0	0	0	0	0	0		
1577	1	0	0	0	5	12	5	12	5	12	5	12	5	0	0	0	12	0	0	0	10	13	7	12	6	12	6	12	10	0	0	0	13	0	0	0	5	12	10	13	0	0	0	0	0	0	0	0	0	0	
1578	0	0	0	0	5	12	5	12	5	12	5	12	0	0	0	0	0	0	0	0	9	13	7	12	6	12	6	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

























## 1.1 Effects of Congestion on Emission

The average speed used in modelling can have a significant effect on the calculated emissions and does not always represent the worst case. This note sets out how congestion could affect the results. It compares emissions based on the assumption of a steady average speed with emissions calculated assuming periods of low speed and periods of higher speed, giving rise to the same overall average speed.

Using the Bureau Veritas/AEA Emission Factor calculator version 2 (available from [www.bv-modelling.co.uk](http://www.bv-modelling.co.uk)), emissions have been calculated for a 1 km length of road with a daily flow of 100,000 vehicles, with 10% Heavy Duty Vehicles, for the year 2010.

**Without Scheme Scenario:** Daily average speed of 84 kph. Nitrogen oxides (NOx) emissions are calculated assuming:

- a) a steady 84 kph for all hours of the day
- b) a congestion scenario, with an average speed of 84 kph made up of 2 hours at 20 kph affecting 20% of the traffic and 22 hours at 100 kph affecting 80% of the traffic.

**With Scheme Scenario:** Daily average speed of 100 kph. Emissions are calculated assuming:

- c) a steady 100 kph for all hours of the day

**Table 1 – Emissions based on average speed of 84 kph**

Speed	NOx emissions (kg)	PM <sub>10</sub> emissions (kg)
a) Do Minimum Steady Speeds	647	16.5
b) Do Minimum Congestion	751	22.9
Increase with Congestion	16%	39%
c) With Scheme	727	21.9

Not allowing for congestion will mean that without scheme emissions may have been underestimated. In this example, the emissions without allowing for congestion increase by 12% between the without scheme and with scheme scenarios, from 647 to 727 kg NOx. This becomes a 3% decrease from 751 to 727 kg NOx if congestion is allowed for. A similar pattern will apply to the other pollutants covered in this assessment, including carbon dioxide. In practice it is very difficult to allow for congestion, as the necessary information is normally not available. The modelling for this assessment has just relied on average speeds, with no allowance for congestion at different times of day.

Although not dealt with in this example, similar issues arise in terms of using an average link speed, with no explicit allowance for emissions from queuing traffic at junctions. Transport Scotland is currently exploring ways to improve the calculation procedures, so as to improve the accuracy of the calculation of emissions and to allow the true benefits of reducing congestion and queuing at junctions to be reflected in the emissions calculations.