

## Appendix 8C

### Noise - Assessment results

Table 8C.1 Comparisons of operational noise levels ( $L_{Aeq,T}$  dB) for existing condition 10 2021 – 2027 and for Proposed Development years 2021 to 2024

Contour Level, $L_{Aeq,T}$	Area (sq.km)					No. of Dwellings					No. of Population				
	Existing Condition 10 2021-2027	18 mppa 2021	18 mppa 2022	18 mppa 2023	19 mppa 2024	Existing Condition 10 2021-2027	18 mppa 2021	18 mppa 2022	18 mppa 2023	19 mppa 2024	Existing Condition 10 2021-2027	18 mppa 2021	18 mppa 2022	18 mppa 2023	19 mppa 2024
<b>Daytime contour level, <math>L_{Aeq,16hr}</math></b>															
51	54.1	59.0	57.6	56.1	53.5	13981	16746	16411	15547	14644	32966	39386	38687	36681	34550
52	46.4	50.4	49.4	48.1	46.1	10624	12568	12485	11835	11057	25386	29947	29744	28290	26477
53	39.6	43.2	42.3	41.2	39.4	8385	9579	9546	9302	8604	19917	22589	22523	22017	20364
54	33.5	36.8	36.0	35.0	33.3	7080	7661	7827	7619	7258	16752	18348	18610	18080	17194
55	28.1	31.0	30.2	29.4	28.0	5988	6839	6920	6736	6452	14185	16224	16335	15959	15228
56	23.4	26.1	25.4	24.5	23.3	4900	5572	5629	5388	5187	11511	13156	13423	12740	12275
57	19.4	21.6	21.1	20.4	19.4	4170	4730	4759	4722	4567	9577	11076	11202	11060	10682
58	15.9	17.9	17.4	16.8	16.0	3441	3949	4056	3941	3731	8033	9088	9298	8981	8579
59	13.0	14.6	14.3	13.9	13.2	2639	3257	3300	3230	2848	6405	7592	7663	7533	6745
60	10.8	12.0	11.9	11.6	11.0	1742	2140	2371	2210	1966	4530	5409	5808	5509	5070
61	9.0	10.0	10.0	9.7	9.3	1210	1601	1658	1581	1526	3222	4187	4336	4136	3985
62	7.6	8.4	8.5	8.3	7.9	807	1006	1104	1053	882	2196	2720	2976	2848	2372

Contour Level, $L_{Aeq,T}$	Area (sq.km)					No. of Dwellings					No. of Population				
	Existing Condition 10 2021-2027	18 mppa 2021	18 mppa 2022	18 mppa 2023	19 mppa 2024	Existing Condition 10 2021-2027	18 mppa 2021	18 mppa 2022	18 mppa 2023	19 mppa 2024	Existing Condition 10 2021-2027	18 mppa 2021	18 mppa 2022	18 mppa 2023	19 mppa 2024
63	6.3	7.1	7.1	6.9	6.6	720	758	805	776	720	1935	2036	2187	2077	1935
64	5.1	5.9	5.9	5.7	5.4	407	559	649	559	522	1091	1473	1736	1473	1380
65	4.1	4.8	4.8	4.7	4.4	149	398	398	396	316	419	1066	1066	1055	829
66	3.2	3.8	3.9	3.7	3.5	9	11	11	11	9	22	27	27	27	22
67	2.5	3.0	3.0	2.9	2.7	9	9	9	9	9	22	22	22	22	22
68	2.1	2.3	2.4	2.3	2.2	0	2	4	4	0	0	4	12	12	0
69	1.7	1.9	1.9	1.9	1.8	0	0	0	0	0	0	0	0	0	0
<b>Night-time contour level, <math>L_{Aeq,8hr}</math></b>															
45	60.9	70.5	68.5	68.2	64.5	19490	25426	24906	24815	22328	45579	59686	58666	58491	52238
46	51.5	59.6	58.1	57.9	54.8	13750	18246	18634	18482	16394	32080	42749	43669	43308	38404
47	43.8	50.3	49.3	49.1	46.6	9114	12601	12808	12792	11056	21472	29394	30246	30202	25703
48	37.2	42.9	42.1	41.9	39.8	7423	8622	9287	9234	8431	17654	20438	21890	21796	20166
49	31.2	36.4	35.6	35.4	33.5	6156	7297	7578	7549	7275	14531	17327	17957	17884	17195
50	25.9	30.5	29.8	29.7	28.0	4982	5894	6456	6264	5916	11614	13864	15235	14837	14040
51	21.5	25.4	24.6	24.5	23.1	4204	4955	5321	5321	4974	9631	11497	12481	12481	11575
52	17.7	21.0	20.5	20.4	19.2	3418	4016	4515	4515	4088	7995	9258	10528	10528	9367
53	14.6	17.2	17.0	16.9	16.0	2604	3330	3741	3741	3395	6447	7796	8624	8624	7908

Contour Level, <i>L</i> <sub>Aeq, T</sub>	Area (sq.km)					No. of Dwellings					No. of Population				
	Existing Condition 10 2021-2027	18 mppa 2021	18 mppa 2022	18 mppa 2023	19 mppa 2024	Existing Condition 10 2021-2027	18 mppa 2021	18 mppa 2022	18 mppa 2023	19 mppa 2024	Existing Condition 10 2021-2027	18 mppa 2021	18 mppa 2022	18 mppa 2023	19 mppa 2024
54	11.8	14.1	14.1	14.0	13.2	1839	2383	2866	2818	2530	4727	6062	6835	6721	6205
55	9.6	11.4	11.5	11.5	10.8	1184	1790	1908	1908	1742	3166	4616	4909	4909	4539
56	8.0	9.3	9.6	9.6	9.1	811	1012	1380	1380	1258	2206	2734	3644	3644	3334
57	6.6	7.7	8.1	8.1	7.7	695	785	886	886	811	1856	2155	2382	2382	2206
58	5.4	6.4	6.8	6.8	6.4	470	588	722	722	720	1231	1559	1944	1944	1935
59	4.4	5.2	5.6	5.6	5.2	158	460	529	529	469	444	1201	1397	1397	1226
60	3.5	4.2	4.5	4.5	4.2	10	145	325	312	145	26	408	854	818	408
61	2.7	3.4	3.6	3.6	3.4	10	10	10	10	10	26	26	26	26	26
62	2.2	2.6	2.8	2.8	2.6	0	9	9	9	4	0	22	22	22	12

\*Current Condition 10 daytime limit is 19.4 sq.km

\*\*Current Condition 10 night-time limit is 37.2 sq.km

Table 8C.2 Comparisons of operational noise levels ( $L_{Aeq, T}$  dB) for 2028 Scenarios

Contour Level, $L_{Aeq, T}$	Area (sq.km)			No. of Dwellings			No. of Population		
	Existing Condition 2028+	12.5 mppa Future Baseline 2028	19 mppa 2028	Existing Future Condition 2028+	12.5 mppa Future Baseline 2028	19 mppa 2028	Existing Future Condition 2028+	12.5 mppa Future Baseline 2028	19 mppa 2028
<b>Daytime contour level, <math>L_{Aeq, 16hr}</math></b>									
51	44.5	45.6	45.3	10003	9990	10276	23512	23437	24195
52	37.9	39.0	38.7	8003	7857	8211	19006	18772	19584
53	31.9	32.8	32.6	6946	6872	7136	16455	16330	16877
54	26.5	27.4	27.1	5582	5560	5816	13130	13036	13840
55	22.1	22.8	22.6	4748	4682	4885	11185	10926	11445
56	18.3	18.9	18.7	4110	3888	4129	9440	8991	9477
57	15.2	15.5	15.5	3267	3045	3340	7629	7247	7786
58	12.5	12.7	12.8	2333	2045	2506	5765	5200	6139
59	10.4	10.4	10.6	1663	1386	1716	4348	3655	4471
60	8.7	8.5	8.9	1059	886	1169	2862	2382	3128
61	7.3	7.1	7.5	807	722	807	2196	1944	2196
62	6.1	5.9	6.2	643	511	720	1713	1348	1935
63	5.0	4.8	5.1	411	331	460	1102	869	1201
64	4.0	3.8	4.1	143	17	143	404	39	404
65	3.2	3.0	3.2	10	10	10	26	26	26

Contour Level, <i>L</i> <sub>Aeq, T</sub>	Area (sq.km)			No. of Dwellings			No. of Population		
	Existing Condition 2028+	Future Baseline 2028	12.5 mppa Future 2028	Existing Condition 2028+	Future Baseline 2028	12.5 mppa Future 2028	Existing Condition 2028+	Future Baseline 2028	12.5 mppa Future 2028
66	2.4	2.4	2.5	4	2	4	12	4	12
67	2.0	2.0	2.0	0	0	0	0	0	0
68	1.7	1.7	1.7	0	0	0	0	0	0
69	1.4	1.4	1.4	0	0	0	0	0	0
<b>Night-time contour level, LAeq,8hr</b>									
45	52.5	57.0	58.4	15597	16706	19637	36403	39151	45912
46	44.4	48.8	49.5	10475	11824	13761	24377	28124	32067
47	37.7	41.9	42.0	7989	9131	9508	18915	21674	22374
48	31.6	35.6	35.5	6860	7574	7624	16252	17968	18083
49	26.1	29.9	29.6	5391	6503	6145	12647	15335	14637
50	21.6	24.9	24.5	4747	5412	5221	11072	12703	12216
51	18.1	20.8	20.3	3805	4582	4502	8733	10715	10358
52	15.0	17.2	17.0	3077	3879	3544	7186	8948	8264
53	12.4	14.3	14.1	2053	3025	2785	5348	7188	6645
54	10.2	11.8	11.6	1625	2099	1891	4247	5311	4912
55	8.6	9.9	9.6	1012	1406	1385	2734	3709	3656
56	7.2	8.2	8.1	781	886	886	2143	2382	2382

Contour Level, <i>L<sub>Aeq, T</sub></i>	Area (sq.km)			No. of Dwellings			No. of Population		
	Existing Future Condition 2028+	12.5 mppa Future Baseline 2028	19 mppa 2028	Existing Future Condition 2028+	12.5 mppa Future Baseline 2028	19 mppa 2028	Existing Future Condition 2028+	12.5 mppa Future Baseline 2028	19 mppa 2028
57	6.0	6.9	6.8	530	722	722	1399	1944	1944
58	4.9	5.7	5.6	396	529	510	1054	1397	1343
59	3.9	4.6	4.5	144	318	264	407	833	679
60	3.1	3.7	3.6	10	10	12	26	26	30
61	2.4	2.9	2.8	2	9	10	8	22	26
62	1.9	2.2	2.2	0	0	0	0	0	0