

Annex S - Noise

February 2023



APPENDIX A – BASELINE SURVEY DATA

Figure A.1 Site Location Plan

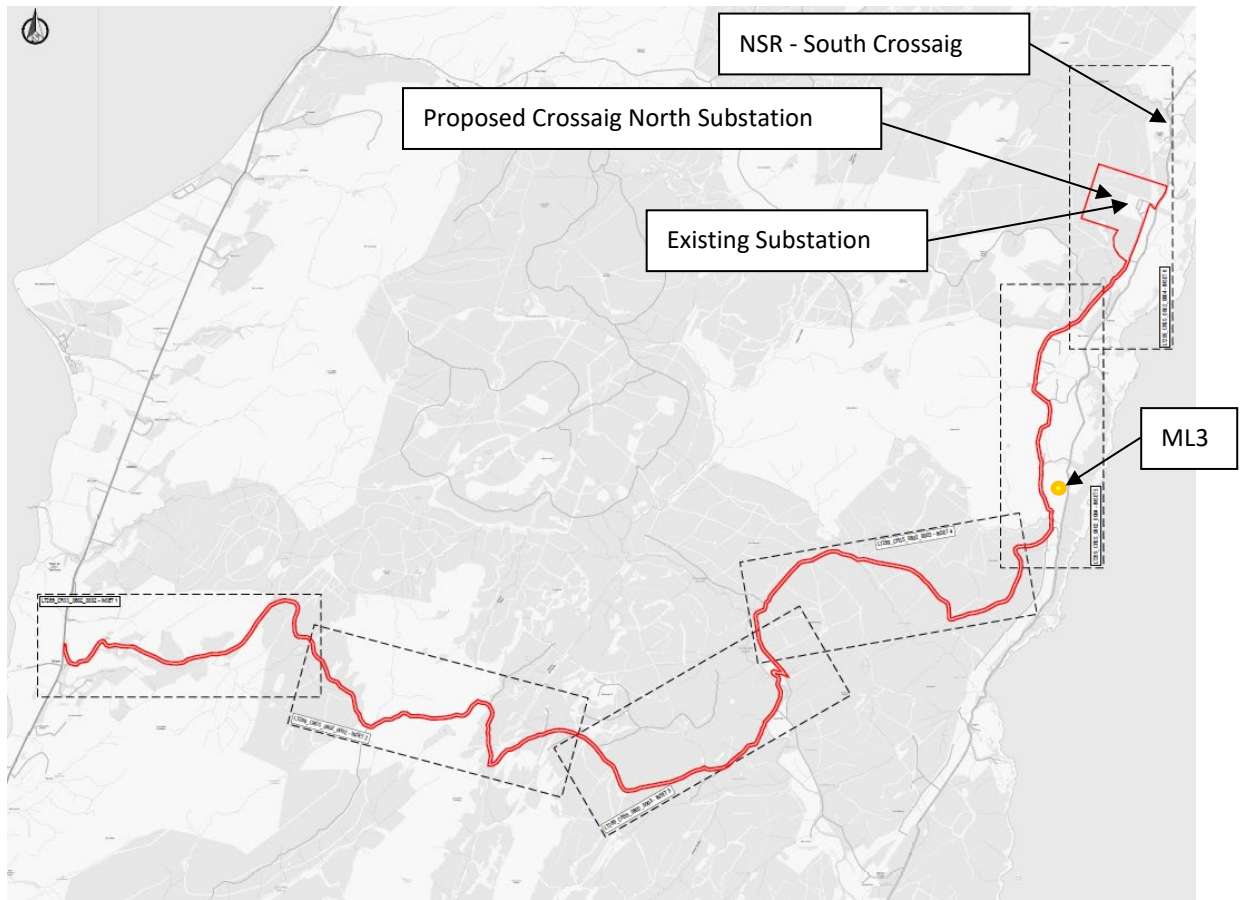




Plate A.2 Sound Level Meter Location for Crossaig North

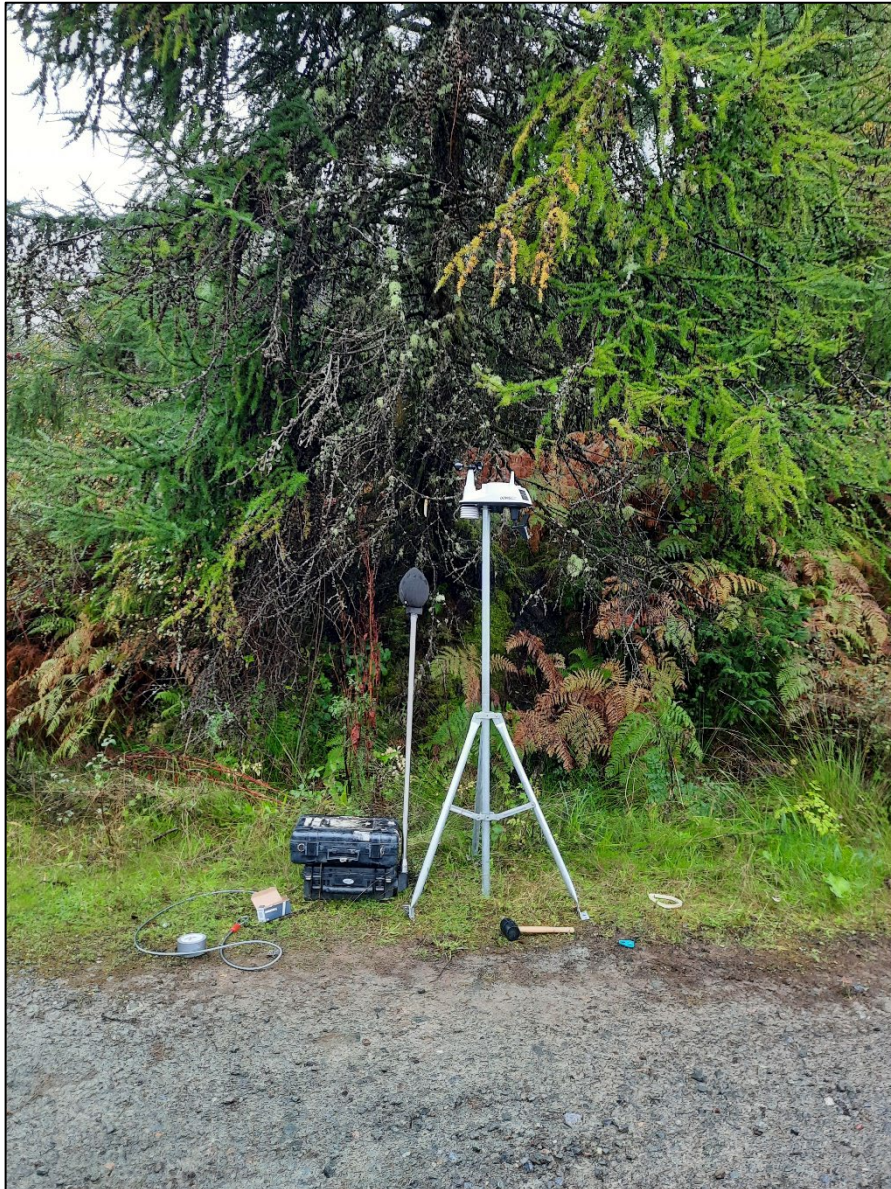


Figure A.3 – Meteorological Conditions for Crossaig North

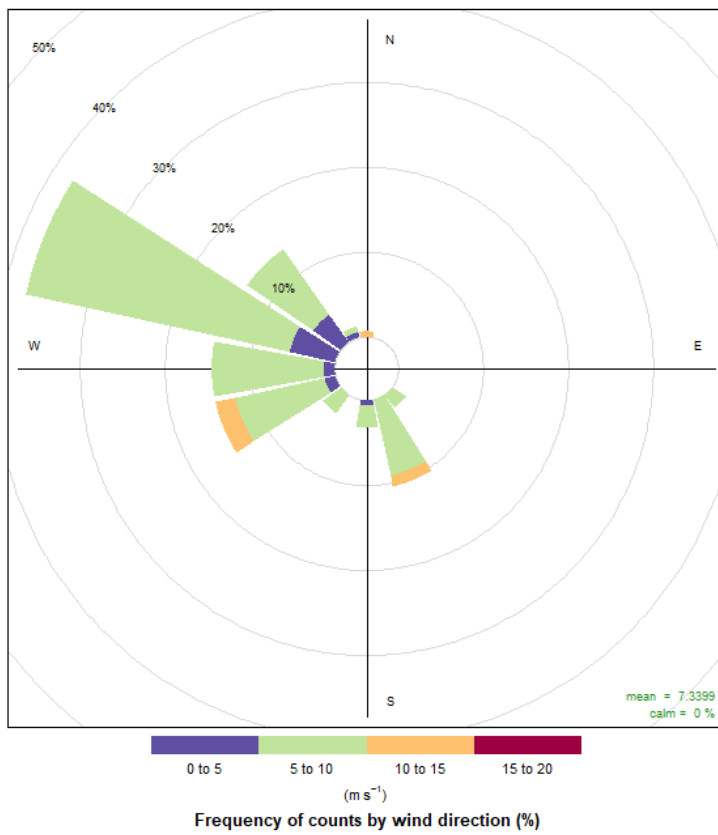
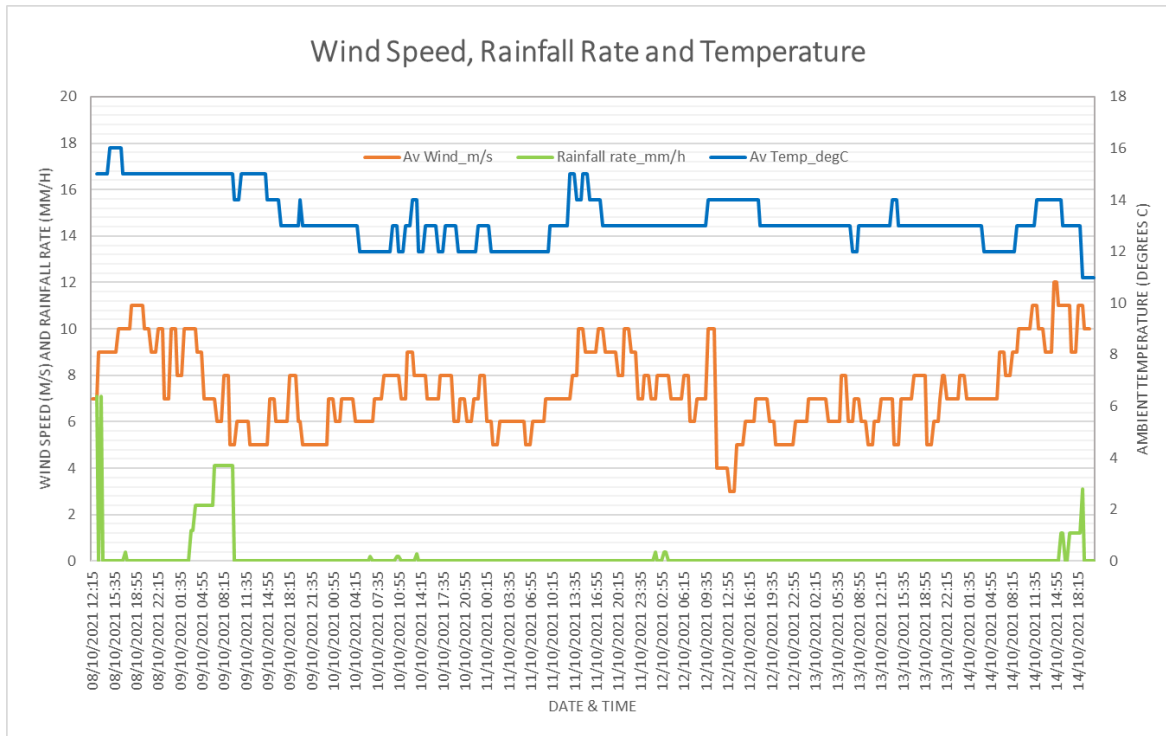


Figure A.4 Measured Sound Level Data

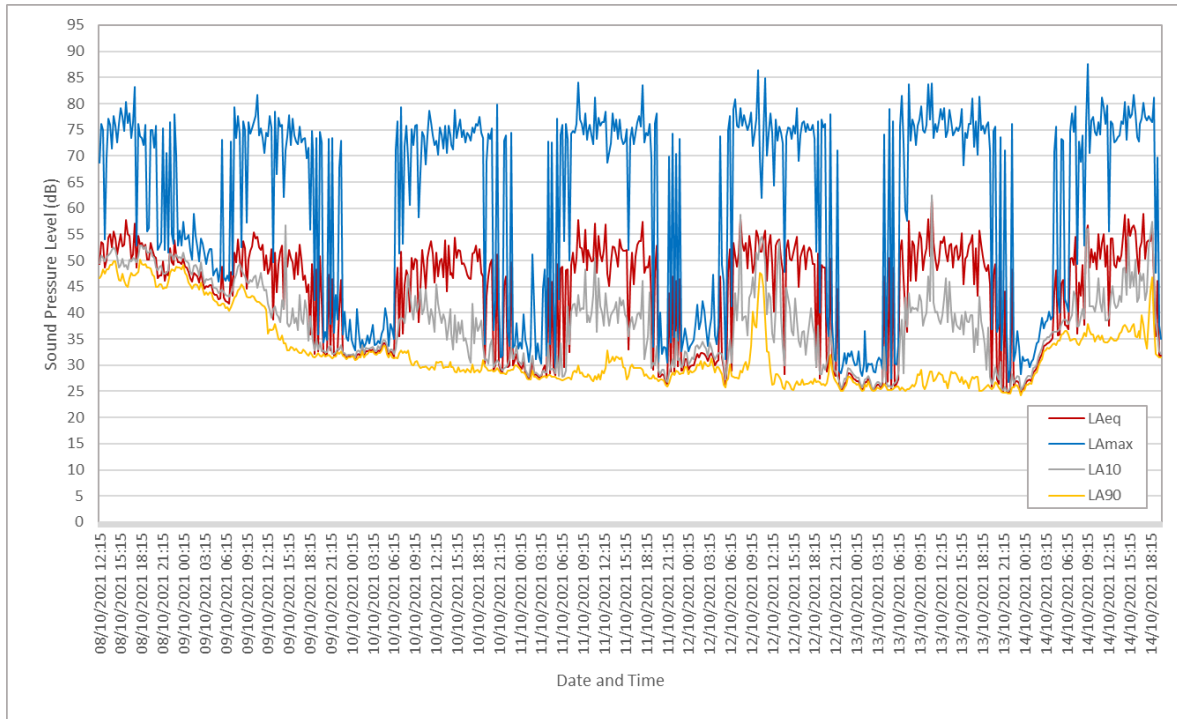


Figure A.5 Wind Speed at ML3 and Background Sound Level Data

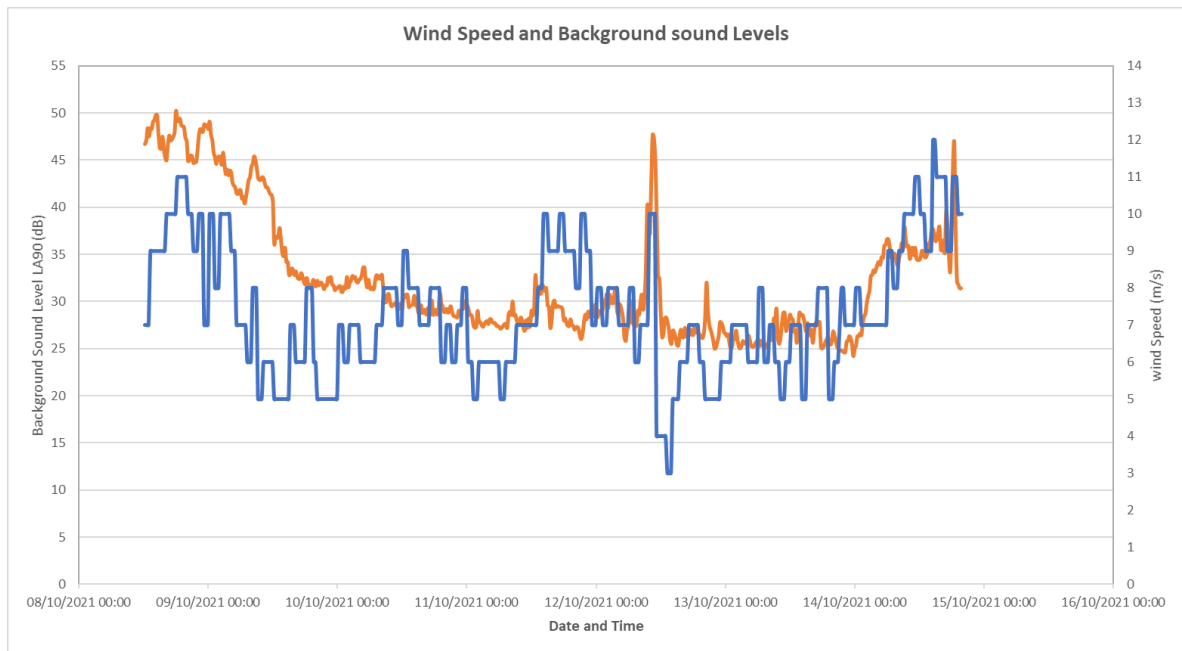


Figure A.6 Daytime Sound Level Distribution

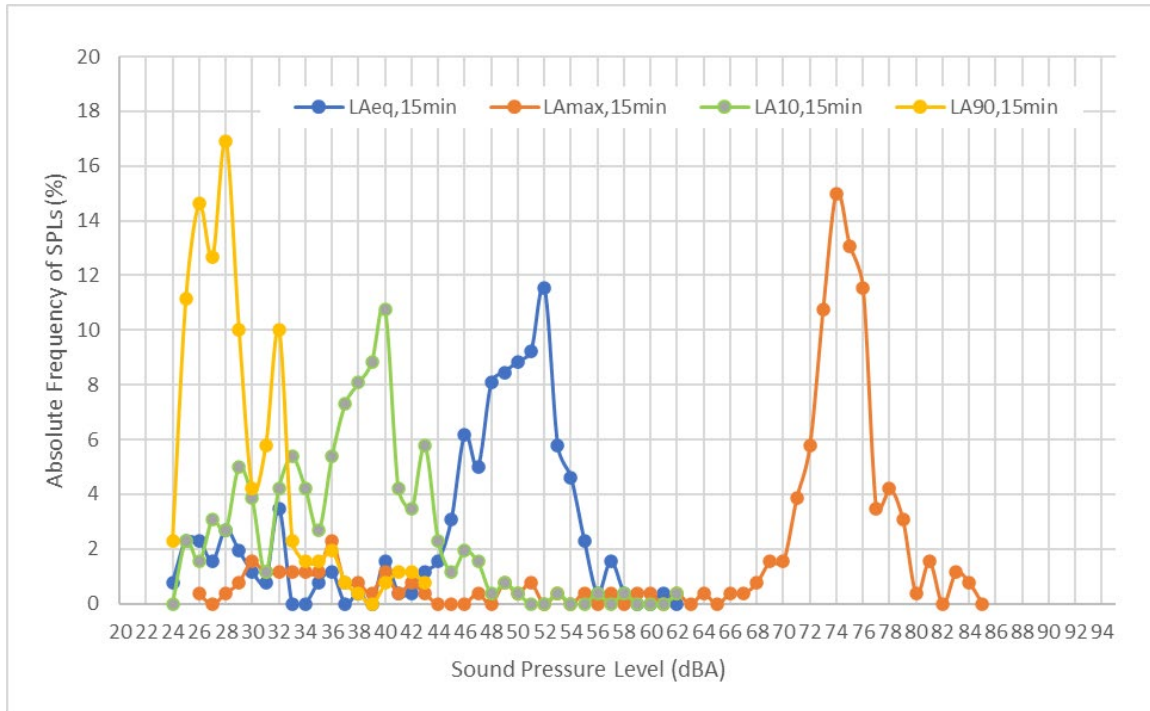
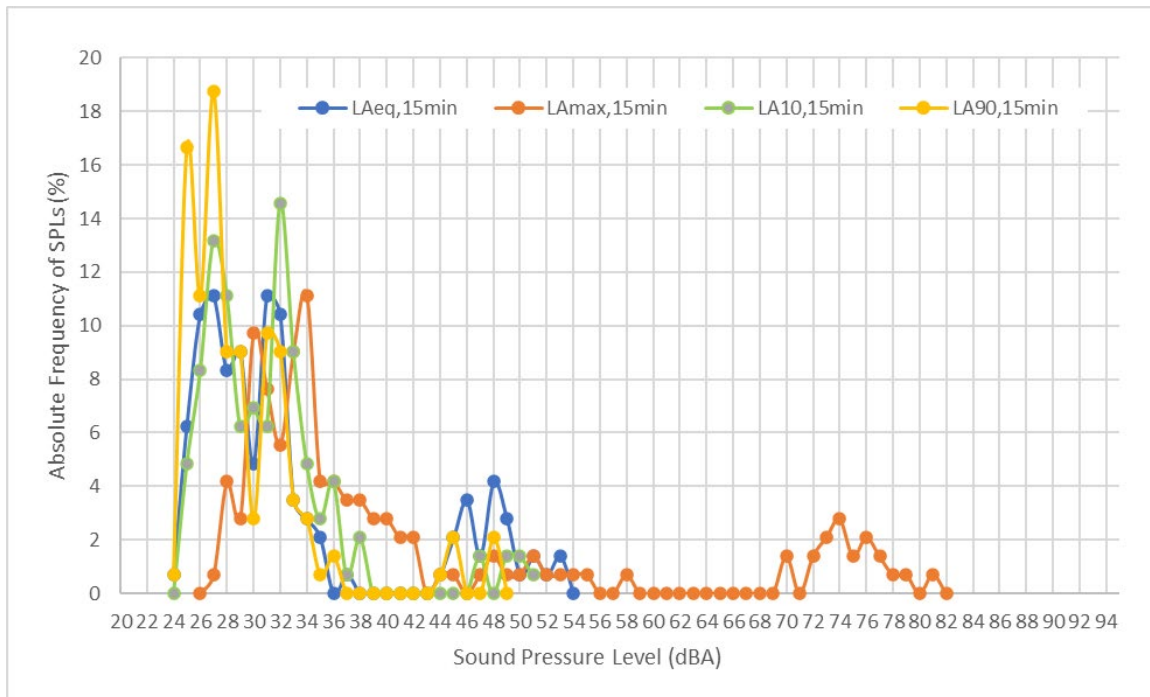


Figure A.7 Night-Time Sound Level Distribution



APPENDIX B – TRAFFIC DATA

Table B.1 Average Annual Daily Flow

Site	Year	Count Method	Pedal Cycles	Two wheeled motor vehicles	Cars and Taxis	Buses and Coaches	Light Goods Vehicles	Heavy Good Vehicles	All motor vehicles
A83 (near B8001) Site ref. 77107	2021	Dependent on a neighbouring counted link	0	0	1311	34	647	249	2241

Table B.2 Monthly Estimate of Construction Vehicle Numbers for the Proposed Development

Task	Month																								Total	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		Months 25 to 30
Forestry Operations	24	24	23	23																						94
Earthworks Platform							425	425	425	424	424	424														2,547
Earthworks Site Compound			285	284																						569
Access Tracks					63	62																				125
Concrete													100	100	93	85	85									463
Building/ Civils work														20	20	20	18	18	18							114
Electrical Equipment																		25	25	25	25	25	24	22	67 total	238
Transformer																						2				2
Total HGVs (Two-way	24	24	308	307	63	62	425	425	425	424	424	424	100	120	113	105	103	43	43	25	25	27	24	22	67 total	4,152

return movements)																											
Car/ Light Goods Vehicle	880	880	880	880	880	880	880	880	880	880	880	880	880	880	880	880	880	880	880	880	880	880	880	880	880	880	26,400
Total Vehicles (Two-way return movements)	904	904	1188	1187	943	942	1305	1305	1305	1304	1304	1304	980	1000	993	985	983	923	923	905	905	907	904	902	904	30,552	

APPENDIX C – PLANT NOISE SPECTRUM

Plant	Sound Power Level SWL (dBA)	Octave Band Sound Power Level SWL (dB)							
		63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
2no. new 480MVA 275/132kV supergrid transformer at 50% load	87	79	102	86	76	75	65	58	47
2no. new 480MVA 275/132kV supergrid transformer at 100% load	98	90	113	97	87	86	76	69	58
2no. transformer coolers	85	58	70	86	80	80	79	74	66
2no. existing (existing Crossaig substation) 240MVA Quadrature boosters (QB1 & QB2)	72	67	63	75	73	58	53	44	29
1no. 90MVA (existing Crossaig substation) transformer (GT1)	74	76	82	78	72	65	59	53	43
Existing SGT1 (North of the existing Crossaig substation)	80	72	95	79	69	68	58	51	40
Existing SGT2 (South of the existing Crossaig substation)	84	76	99	83	73	72	62	55	44
Existing Reactor 1 (North of the existing Crossaig substation)	85	73	99	78	83	58	51	42	34
Existing Reactor 2 (South of the existing Crossaig substation)	89	61	71	97	76	81	56	40	32

APPENDIX D – SOUND PROPOGATION MODELLING PLOTS

Figure C.1 Sound Propagation Plot – Scenario 1

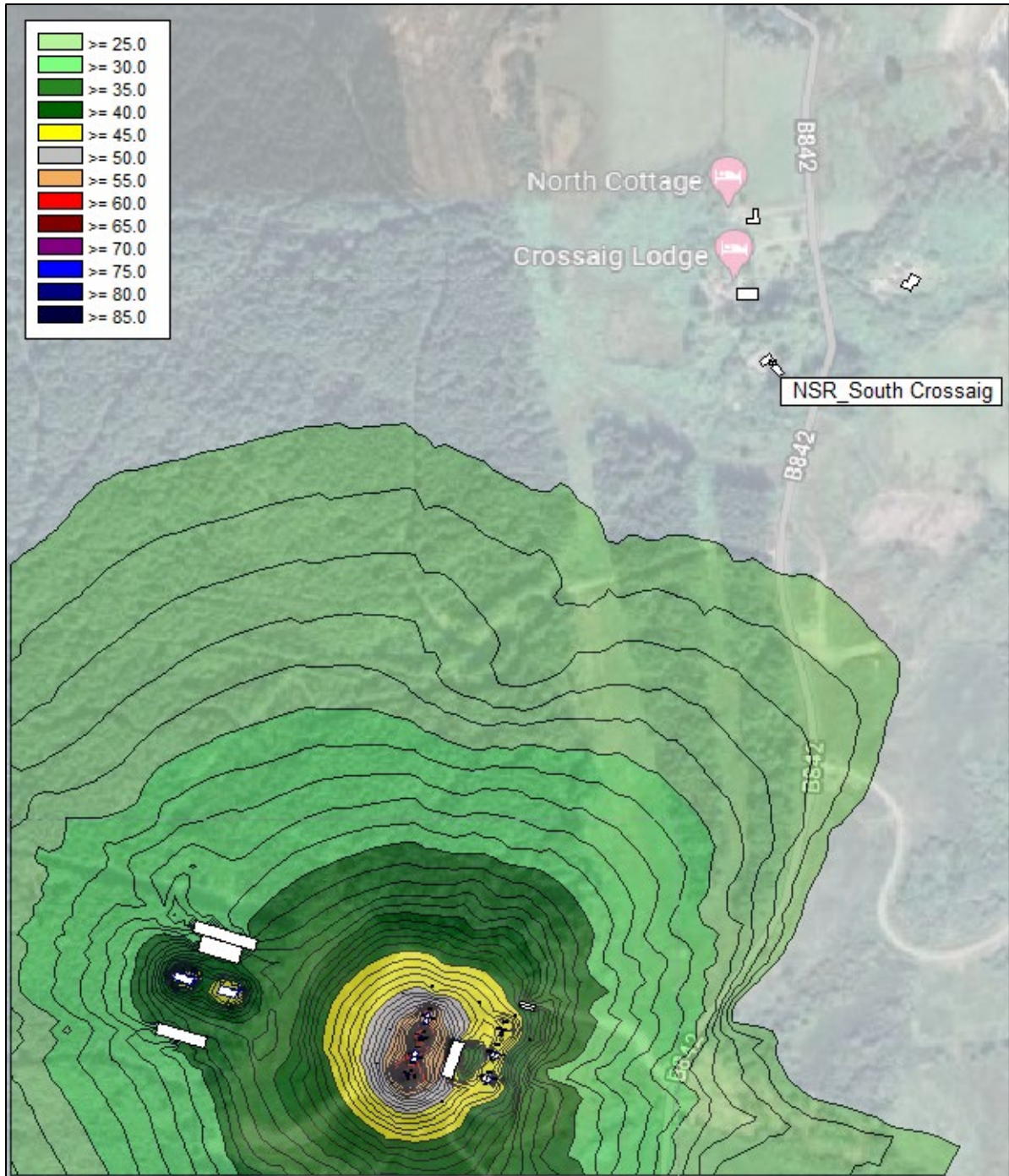


Figure C.2 Sound Propagation Plot – Scenario 2

