Appendix 12.10

Ecology Noise Model Results

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1 Introduction

1.1.1 The Environmental Impact Assessment (EIA) of the potential noise and vibration impacts for sensitive receptors is presented in **Chapter 17** of the Environmental Statement and follows the guidance for Detailed Assessment provided in the DMRB, Volume 11, Section 3, Part 7 '*Noise and Vibration'* (The Highways Agency *et al*, 2011, thereafter referred to as HD213/11).

1.1.2 Potential impacts of operational road traffic noise are considered for leaving the existing A9 route alignment unchanged, or implementing the Proposed Scheme, referred to as the Do-Minimum and Do-Something scenarios respectively.

1.1.3 Impacts and significance of operational road traffic noise are considered in **Chapter 17** based on outputs from the traffic model. This appendix presents the findings of specific noise modelling carried out to identifying potential impacts for sensitive ecology features.

2 Baseline

2.1.1 **Chapter 12** presents sensitive ecology features that could be affected by changes in noise and vibration levels (see **Table 2-1**). From the closest point (e.g. nearest otter habitat), each feature has been modelled against the Do-Minimum (DM) and Do-Something (DS) scenario for the opening year (2026) and future operational baseline (2041). Changes in noise levels at these locations are presented in **Appendix A** and shown in **Drawings 47 to 50 (Volume 3)**. Potential impacts based on these findings are discussed in **Chapter 12**.

2.1.2 **Chapter 17** predicts the Do-Minimum and Do-Something scenarios will have no discernible increase in vibration levels, which is not considered further.

Table 2-1: Sensitive ecology features and traffic model references

Feature	Traffic Model Ref.
Drumochter Hills SPA, SAC and SSSI	DHills_x
River Spey SAC	RiverSpey SAC x
Riverine habitats for aquatic species (freshwater fish)	P07 Salmon_Sx
Otter resting sites	P07_Otter_x_AlltaCha
Notable wading bird habitat	P07_Waders_Ax

3 Summary of Noise Model Results

3.1.1 The traffic model predicts that the majority of ecological receptors will have reduced noise levels in both 2026 and 2041, as shown in **Appendix A**.

3.1.2 Three locations within the Drumochter Hills sampling areas do receive increases in noise levels in both 2026 and 2041. These include model references D, Q and R. The largest increase is at ch.3,500, 35m east of the current A9 (Reference Q) with a 3.3 decibel (dB) increase in the Drumochter Hills SPA, SAC and SSSI in 2026; increasing to 3.5 dB in 2041.

Appendix A – Ecology Noise Modelling Results

NAME	Model Ref	Chainage (ch.)	Longitude	Latitude	DM2026	DS2026	Short-term Change	DM2041	DS2041	Long-term Change
P07_Salmon_S1	A	7,125	262907.16	779455.12	60.0	56.3	-3.7	56.9	56.6	-3.4
P07_Salmon_S2	B	8,950	263556.49	781172.15	59.3	55.9	-3.4	56.7	56.2	-3.1
P07_Otter_1_AlltaCha	C	3,000	263340.00	775550.00	55.0	54.1	-0.9	51.9	54.4	-0.6
P07_Otter_2_AlltaCha	D	3,000	263315.00	775518.00	57.4	56.5	-0.9	54.4	56.7	-0.7
P07_Waders_A1	E	800	264228.24	773503.74	54.5	50.4	-4.1	51.4	50.7	-3.8
P07_Waders_A2	F	2,450	263336.56	774963.50	49.8	48.6	-1.2	46.7	48.9	-0.9
P07_Waders_A3	G	0	265086.61	773336.22	50.9	49.8	-1.1	48.5	50.1	-0.8
RiverSpey SAC 1	H	7,350	262767.79	779694.11	52.1	51.7	-0.4	49.1	52.0	-0.1
RiverSpey SAC 2	I	8,200	263104.63	780497.71	52.8	52.6	-0.2	49.8	52.8	0.0
RiverSpey SAC 3	J	8,500	263166.39	780823.65	51.8	51.2	-0.6	48.8	51.5	-0.3
RiverSpey SAC 4	K	9,350	263666.04	781526.11	54.8	54.5	-0.3	52.0	54.8	0.0
DHills_1	L	6,700	262857.61	779019.75	60.0	59.9	-0.1	57.0	60.2	0.2
DHills_2	M	6,250	262857.61	778530.84	55.5	54.6	-0.9	52.4	54.9	-0.6
DHills_3	N	5,700	262576.91	778081.27	61.2	64.1	2.9	58.5	64.4	3.2
DHills_4	O	4,700	262812.70	777148.42	57.6	57.3	-0.3	54.5	57.6	0.0
DHills_5	P	4,300	262784.63	776704.47	56.2	55.5	-0.7	53.1	55.8	-0.4
DHills_6	Q	3,500	263194.46	776002.01	60.7	64.0	3.3	57.9	64.2	3.5
DHills_7	R	2,150	263544.68	774683.05	54.4	55.6	1.2	51.3	55.9	1.5
DHills_8	S	1,350	263913.87	773963.81	53.9	51.4	-2.5	50.9	51.6	-2.3
DHills_9	T	850	264298.93	773693.60	56.1	55.1	-1.0	53.1	55.4	-0.7
DHills_10	U	50	264818.97	773065.76	53.9	53.2	-0.7	52.7	53.5	-0.4