Edinburgh Airport Airspace Change Programme

Stage 3 Consult

Consultation Document

Appendix D

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Note for reviewers/publishers. – In published copy pictures should be expanded to fill page and print an A3 or greater page size (TBD) required to provide sufficient map resolution. Figure 1 has been expanded to show how this resolution works at 100%

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1 Introduction

This document contains print quality the noise contours and supporting data tables for the consultation option.

2 Additional Figures for “without airspace change” baseline

2.1 L_{Aeq} Contours for Baseline

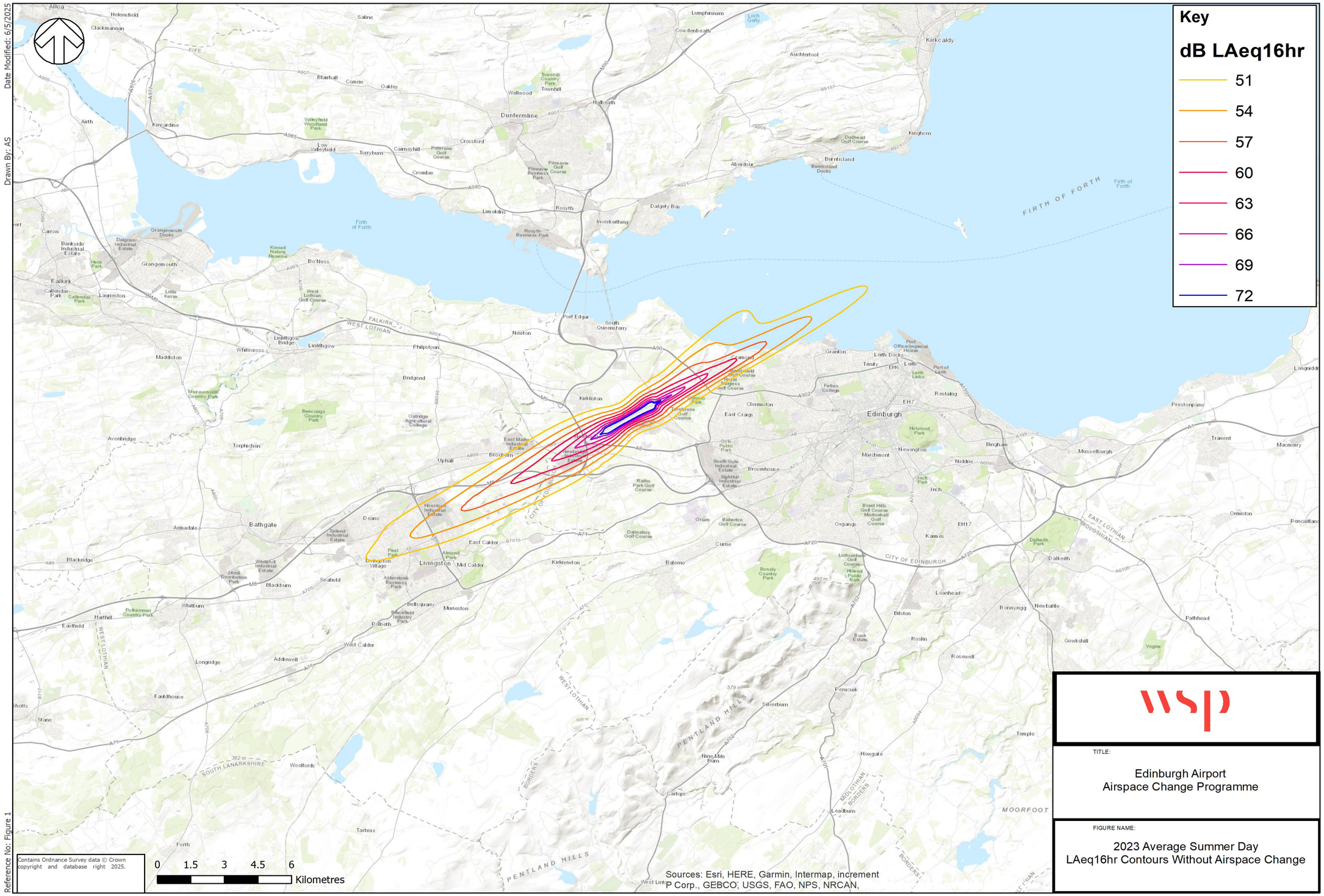


Figure 1: $L_{Aeq,\ 16\ Hr}$, Daytime "Without Airspace Change" Baseline, Current Day

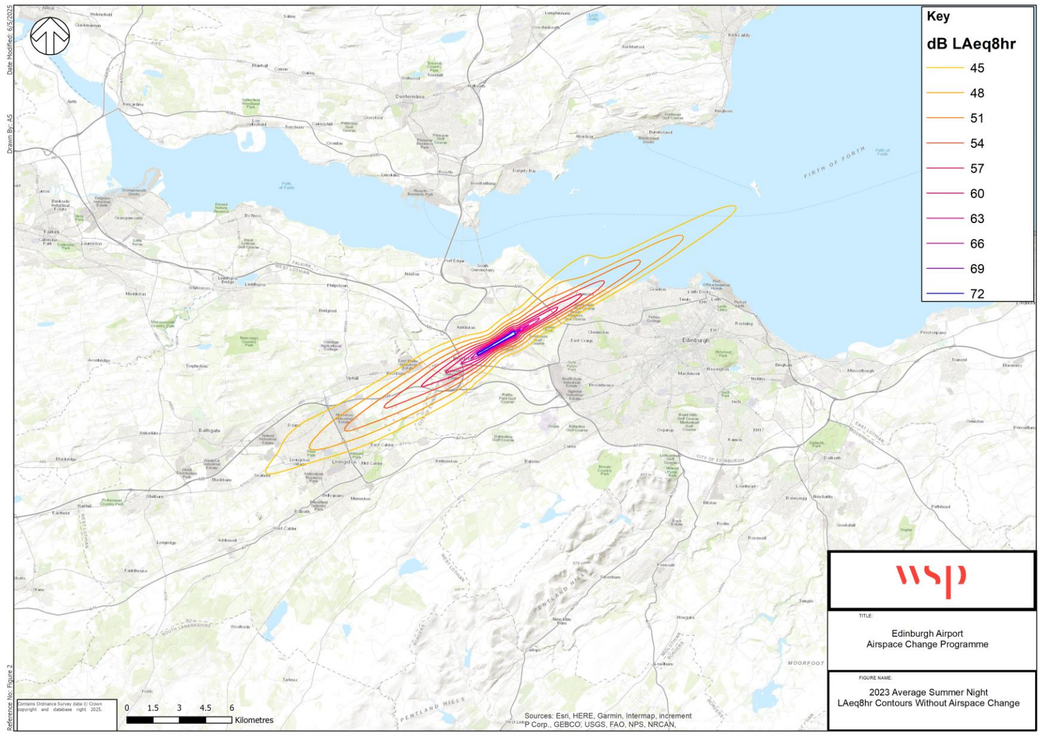


Figure 2: $L_{Aeq,\ 8\ Hr}$, Night-Time "Without Airspace Change" Baseline, Current Day

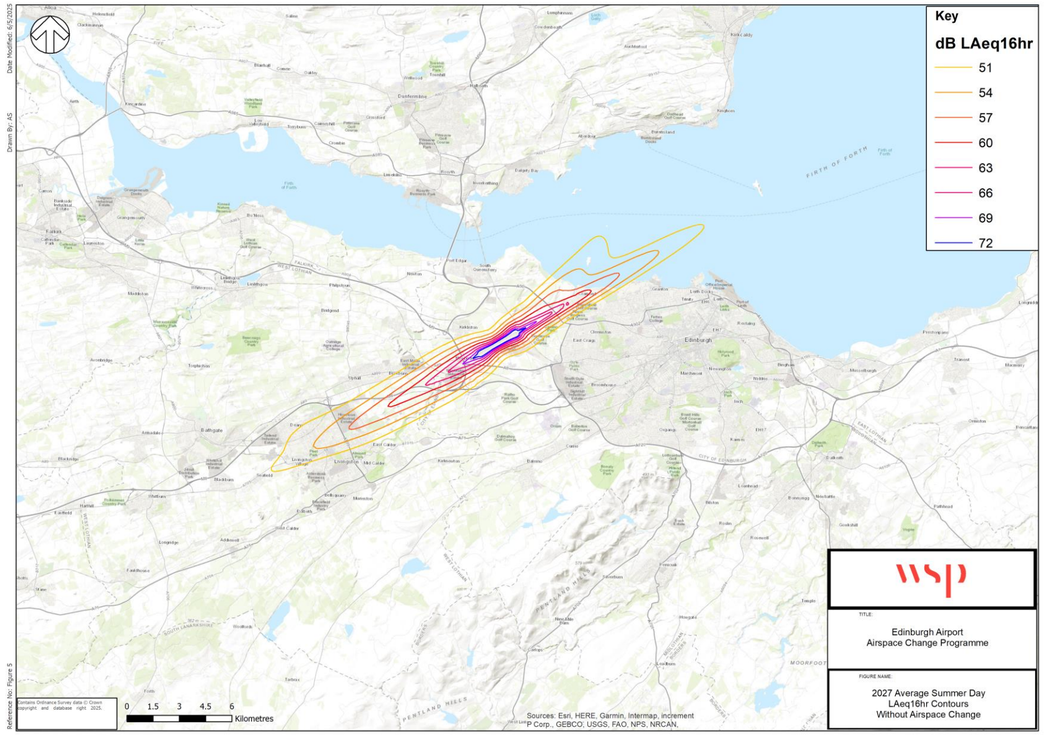


Figure 3: $L_{Aeq,\ 16\ Hr}$, Daytime "Without Airspace Change" Baseline, 2027

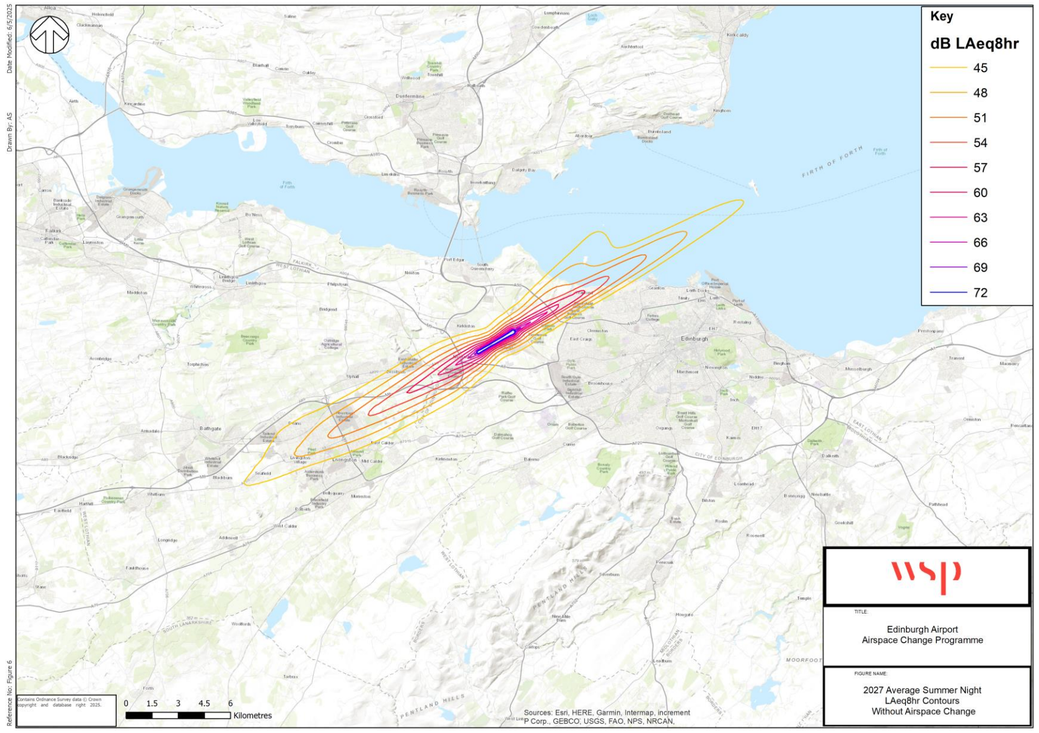


Figure 4: $L_{Aeq,\ 8\ Hr}$, Night-Time "Without Airspace Change" Baseline, 2027

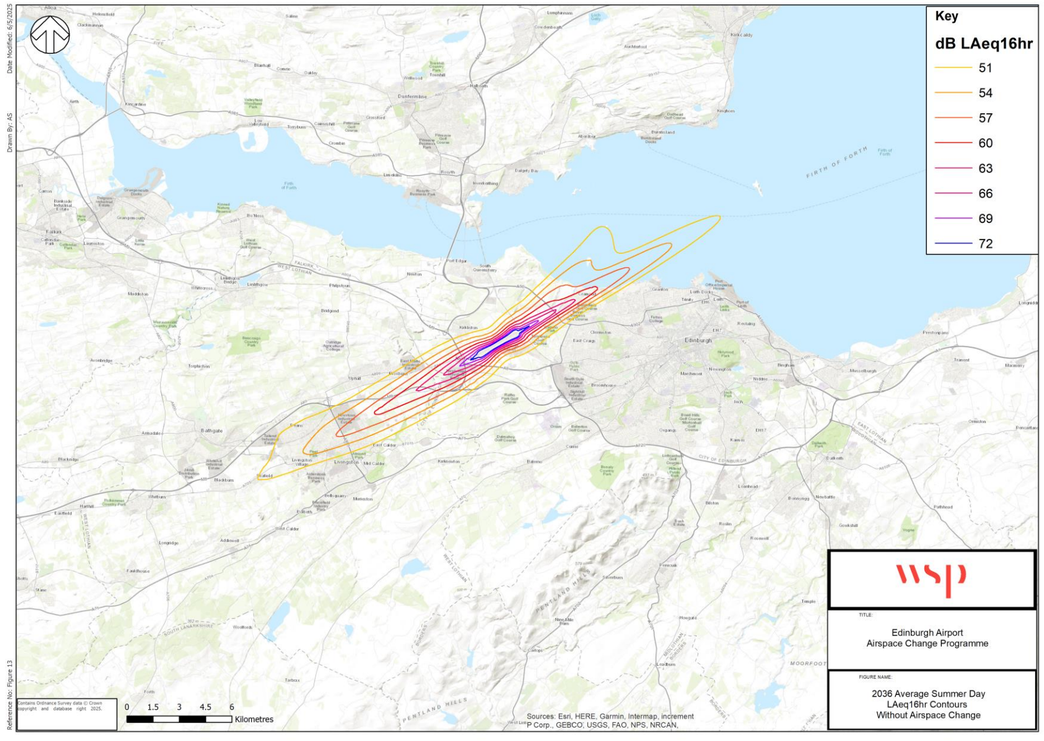


Figure 5: $L_{Aeq,\ 16\ Hr}$, Daytime "Without Airspace Change" Baseline, 2036

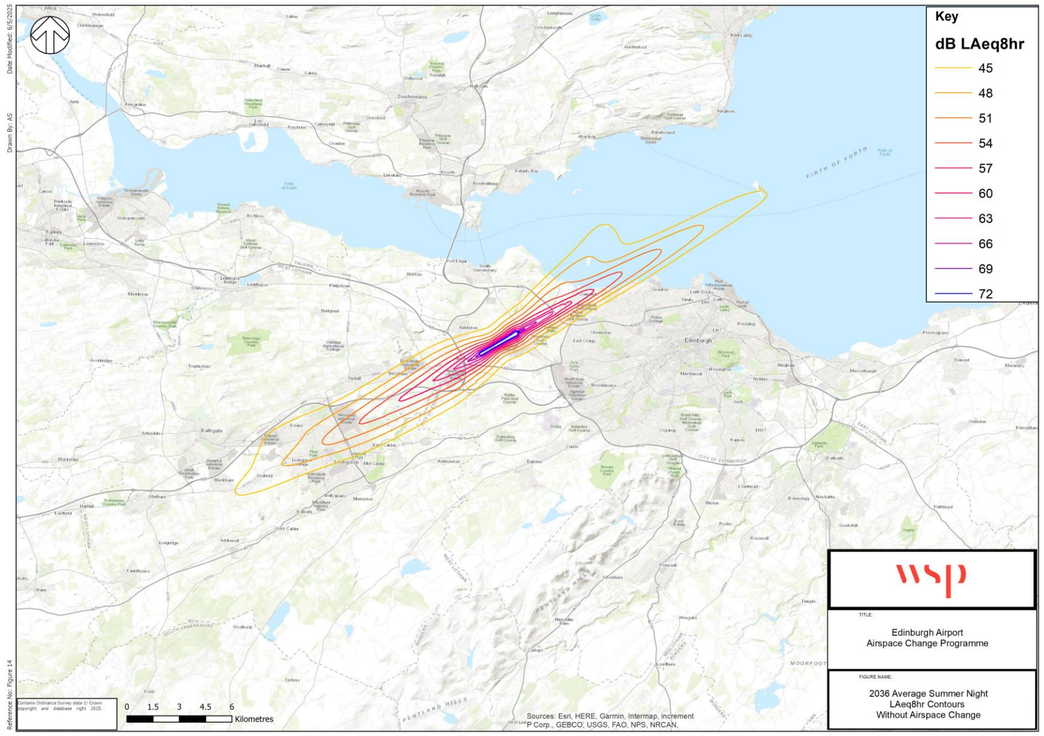


Figure 6: $L_{Aeq,\ 8\ Hr}$, Night-Time "Without Airspace Change" Baseline, 2036

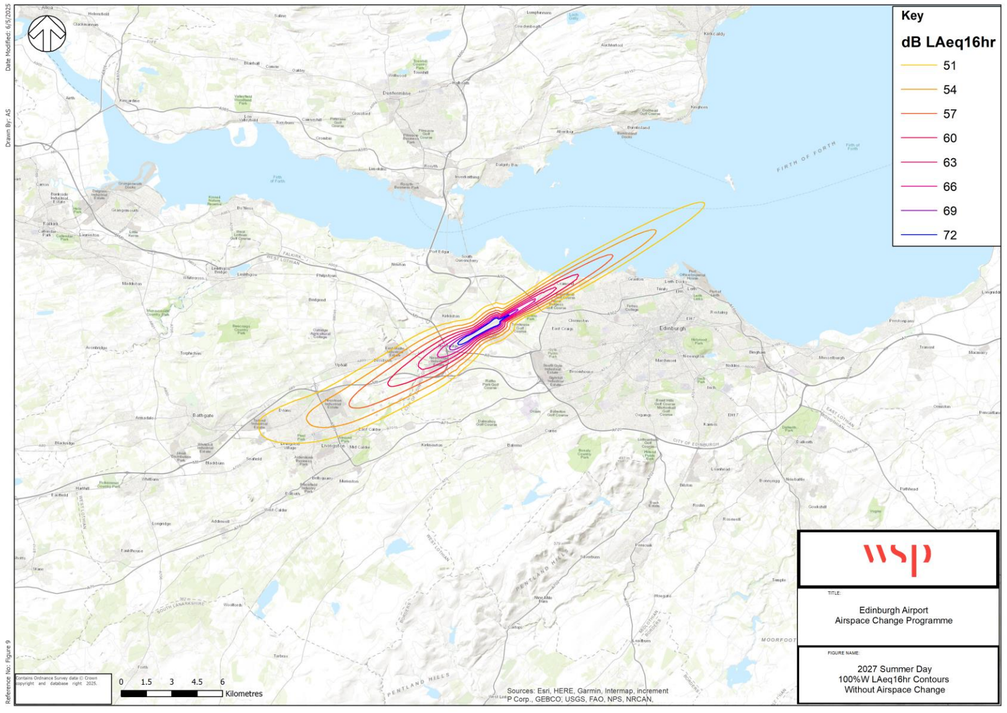


Figure 7: $L_{Aeq,\ 16\ Hr}$, Day-Time 100% West "Without Airspace Change" Baseline, 2027

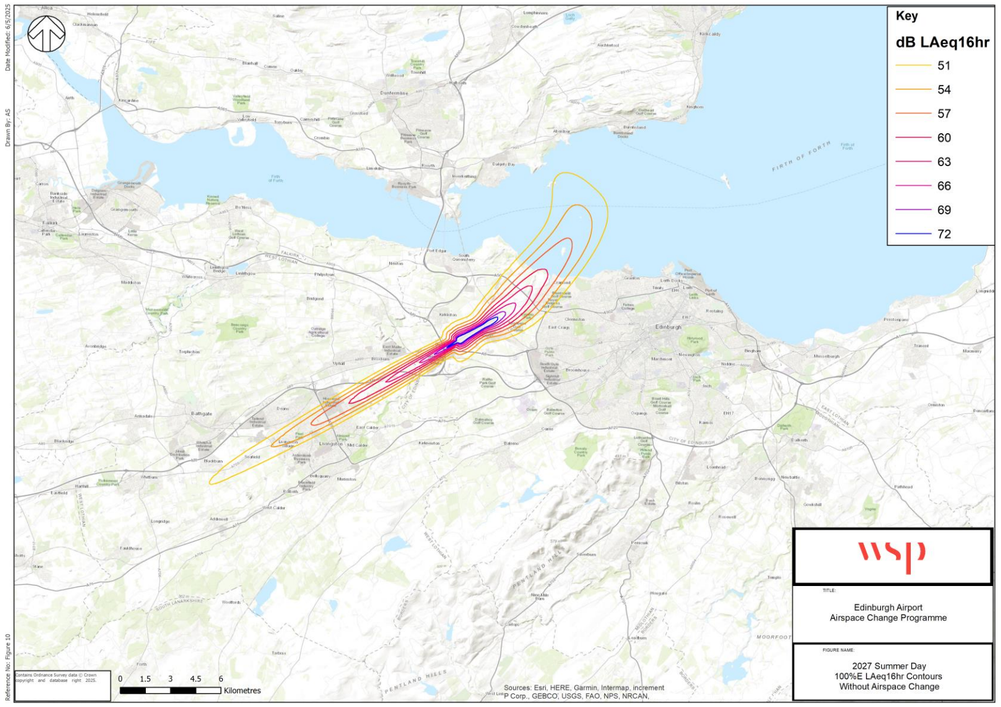


Figure 8: $L_{Aeq,\ 16\ Hr}$, Day-Time 100% East "Without Airspace Change" Baseline, 2027

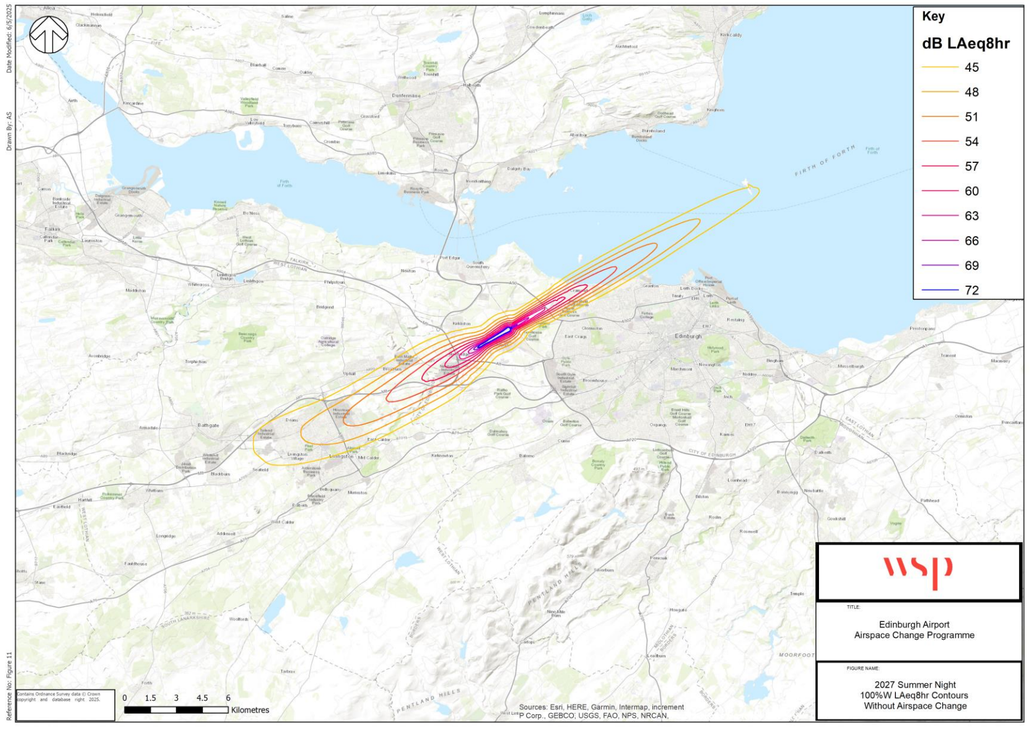


Figure 9: $L_{Aeq,\ 8\ Hr}$, Night-Time 100% West "Without Airspace Change" Baseline, 2027

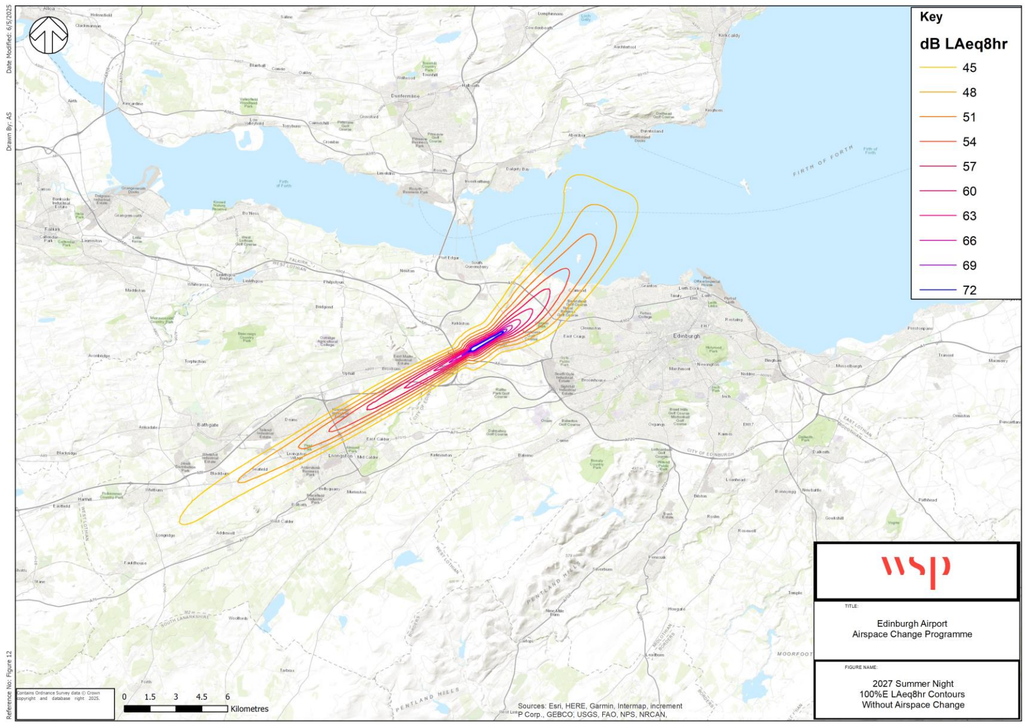


Figure 10: $L_{Aeq,\ 8\ Hr}$, Night-Time 100% East "Without Airspace Change" Baseline, 2027

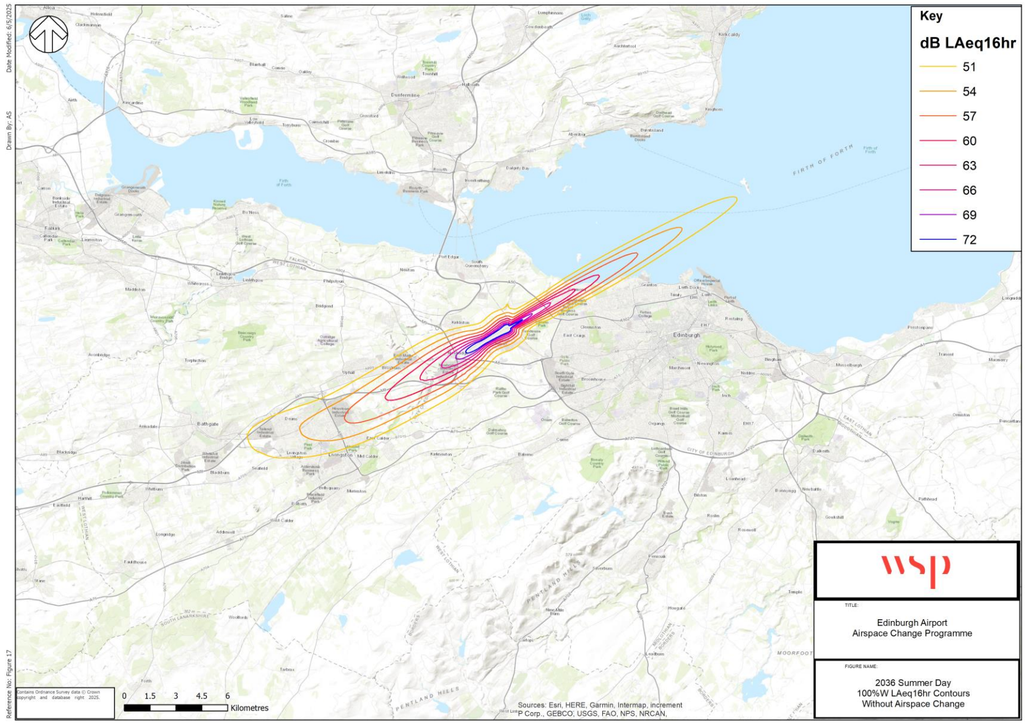


Figure 11: $L_{Aeq,\ 16\ Hr}$, Day-Time 100% West "Without Airspace Change" Baseline, 2036

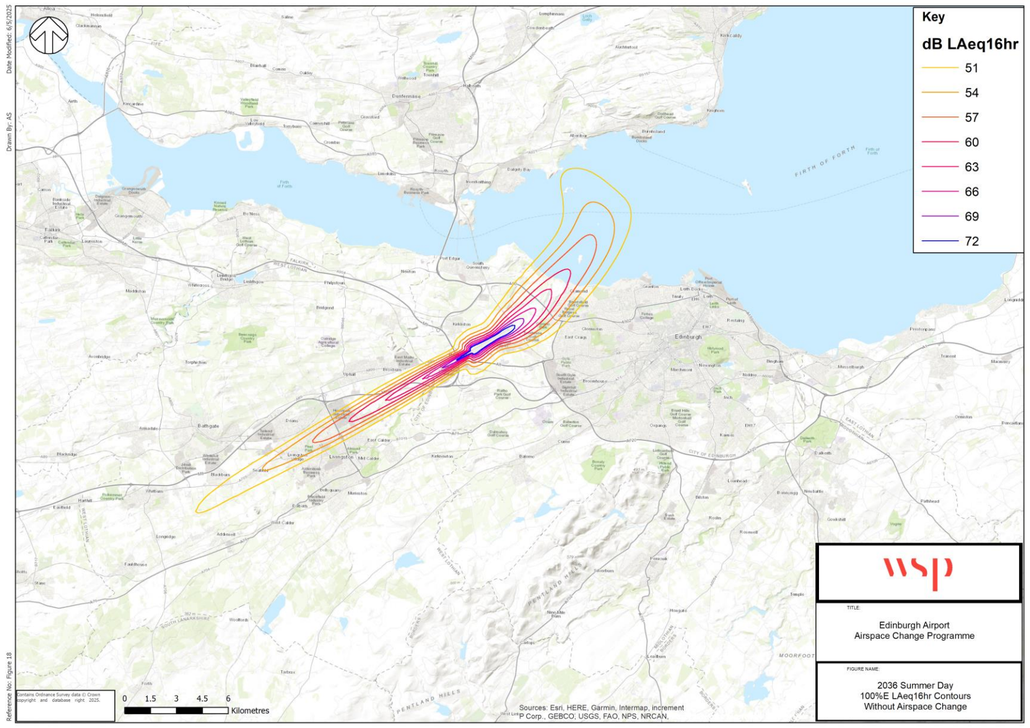


Figure 12: $L_{Aeq,\ 16\ Hr}$, Day-Time 100% East "Without Airspace Change" Baseline, 2036

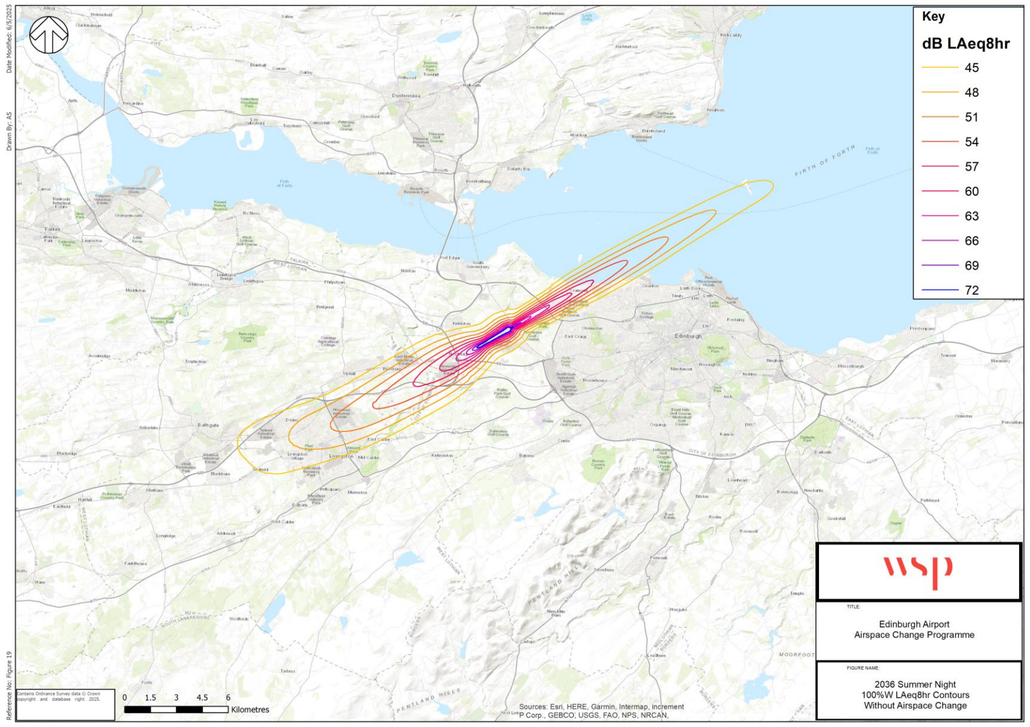


Figure 13: $L_{Aeq,\ 8\ Hr}$, Night-Time 100% West "Without Airspace Change" Baseline, 2036

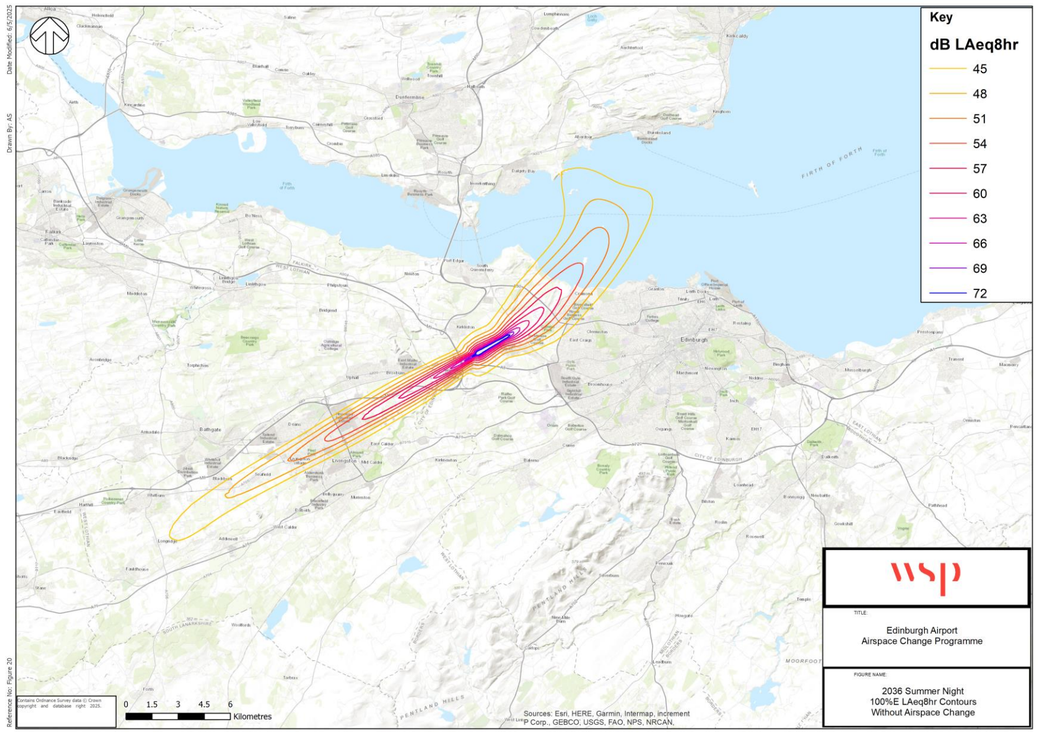


Figure 14: $L_{Aeq,\ 8\ Hr}$, Night-Time 100% East "Without Airspace Change" Baseline, 2036

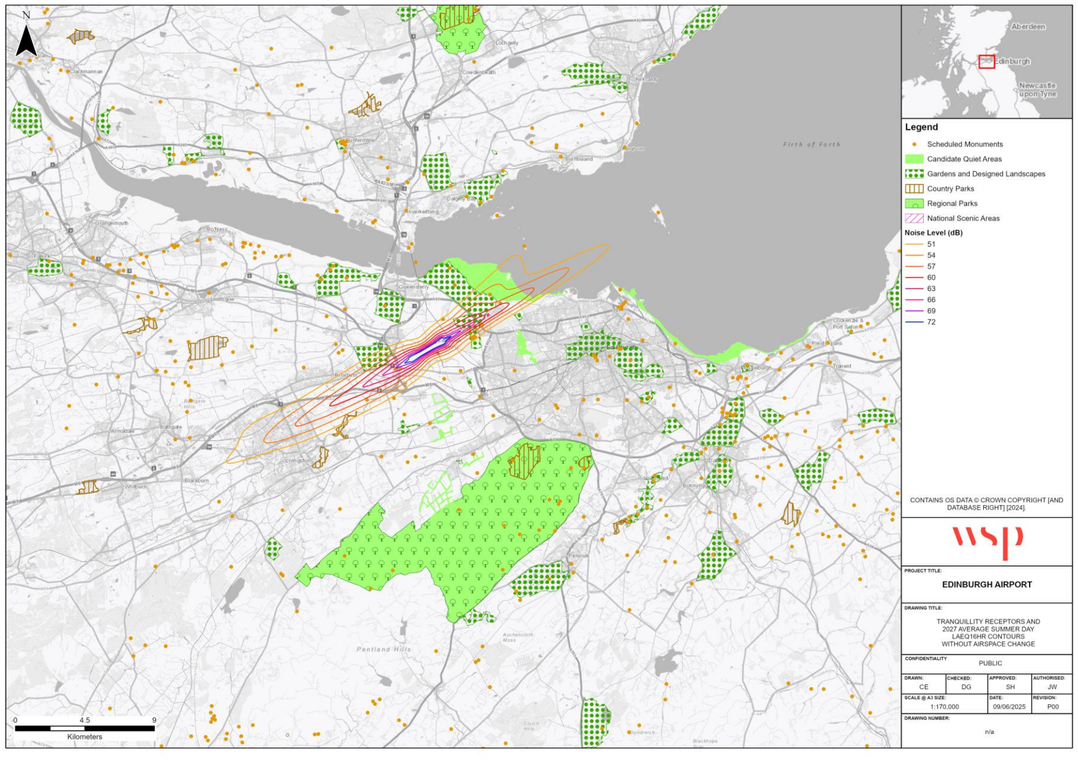


Figure 15: Tranquillity Receptors $L_{Aeq,\ 16\ Hr}$, Day-Time "Without Airspace Change" Baseline, 2027

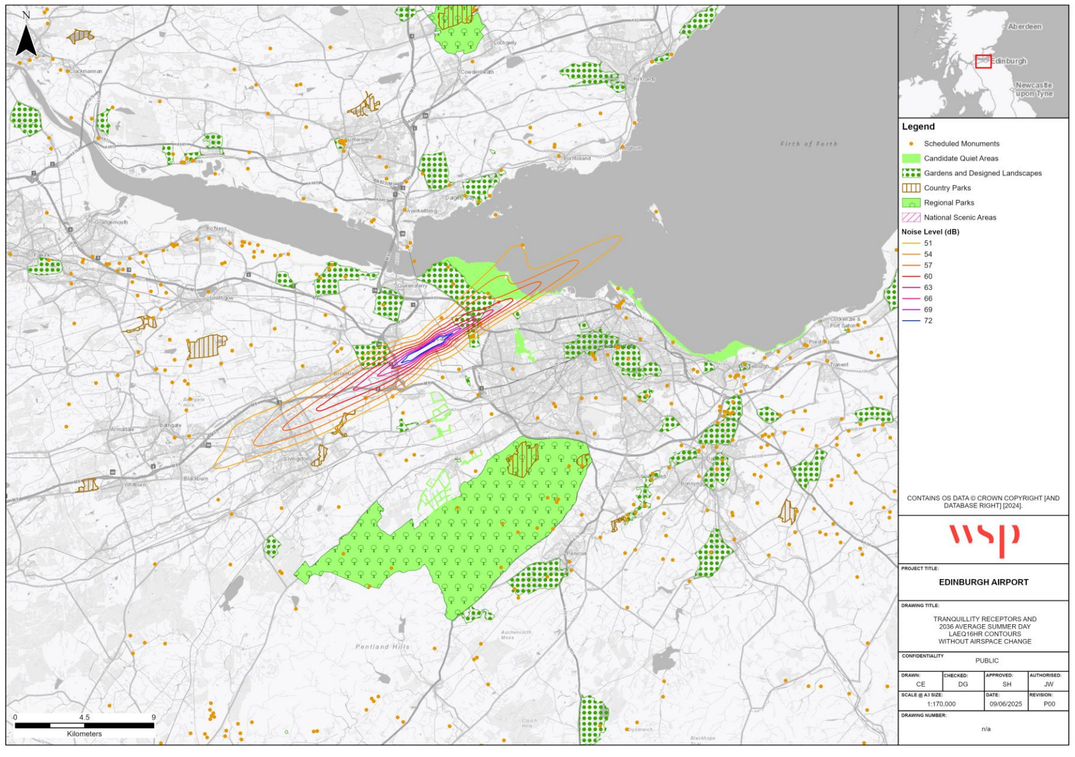


Figure 16: Tranquillity Receptors $L_{Aeq,\ 16\ Hr}$, Day-Time "Without Airspace Change" Baseline, 2036

2.2 Nx Contours for Baseline

Nx contours for the 'without airspace change' baseline are provided below.

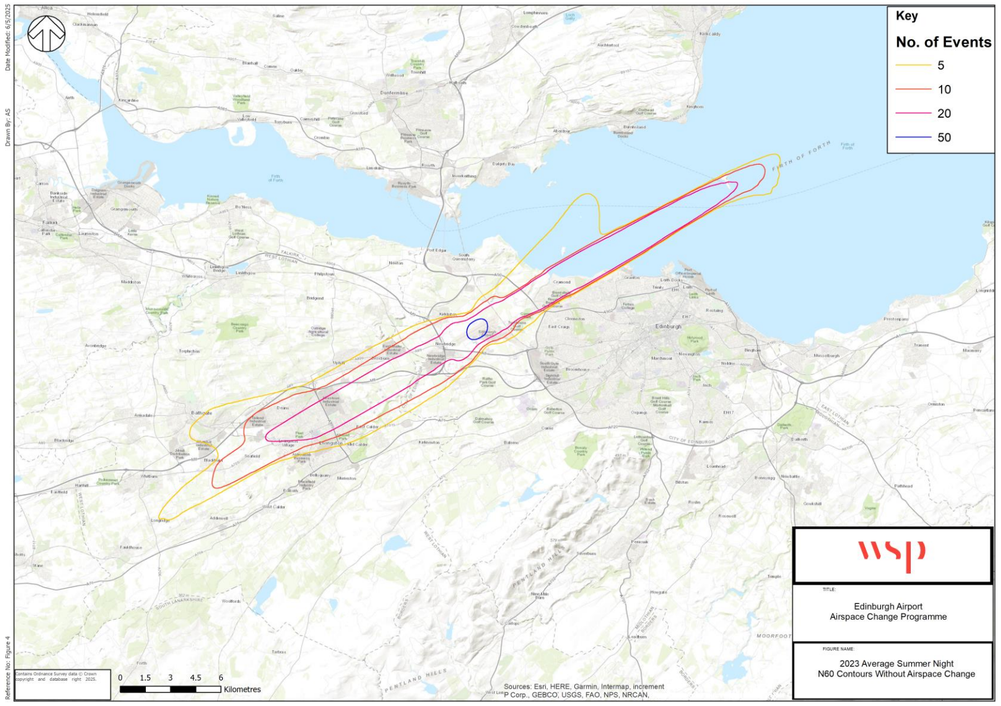


Figure 17: N60 Night-Time "Without Airspace Change" Baseline, Current Day

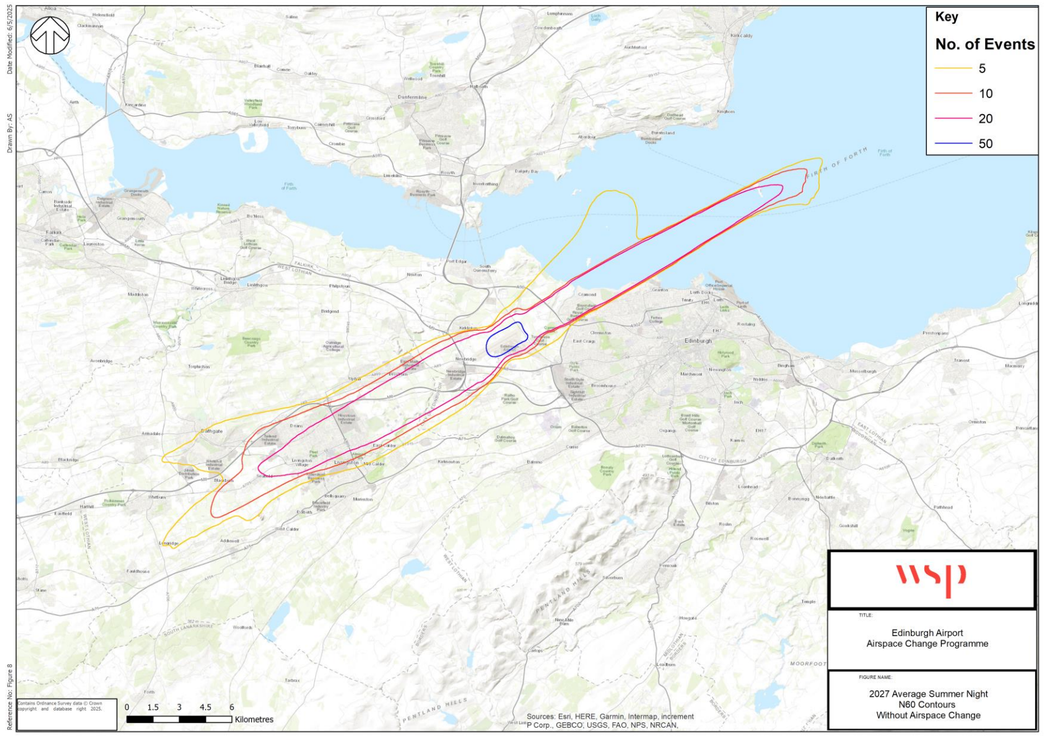


Figure 18: N60 Night-Time "Without Airspace Change" Baseline, 2027

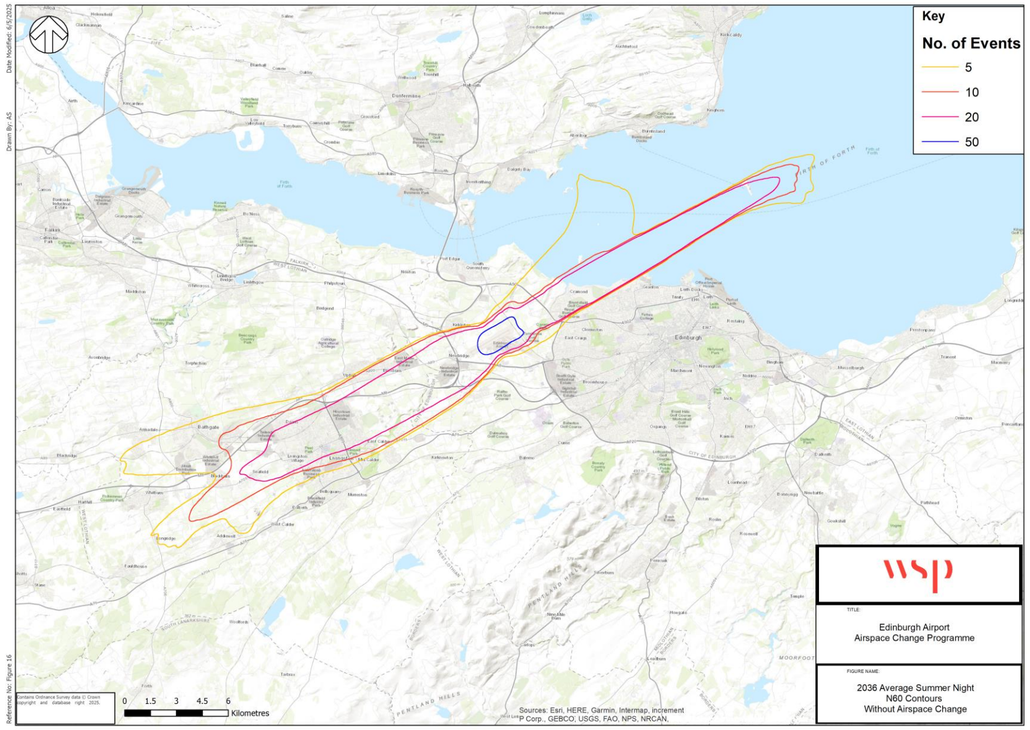


Figure 19: N60 Night-Time "Without Airspace Change" Baseline, 2036

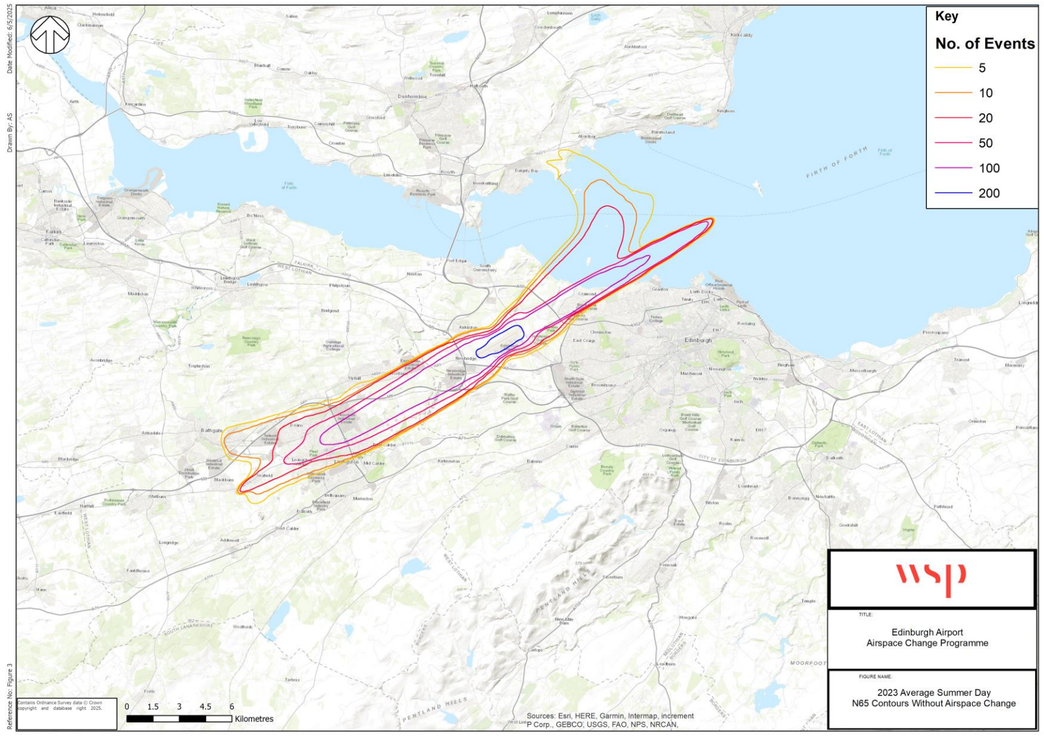


Figure 20: N65 Daytime "Without Airspace Change" Baseline, Current Day

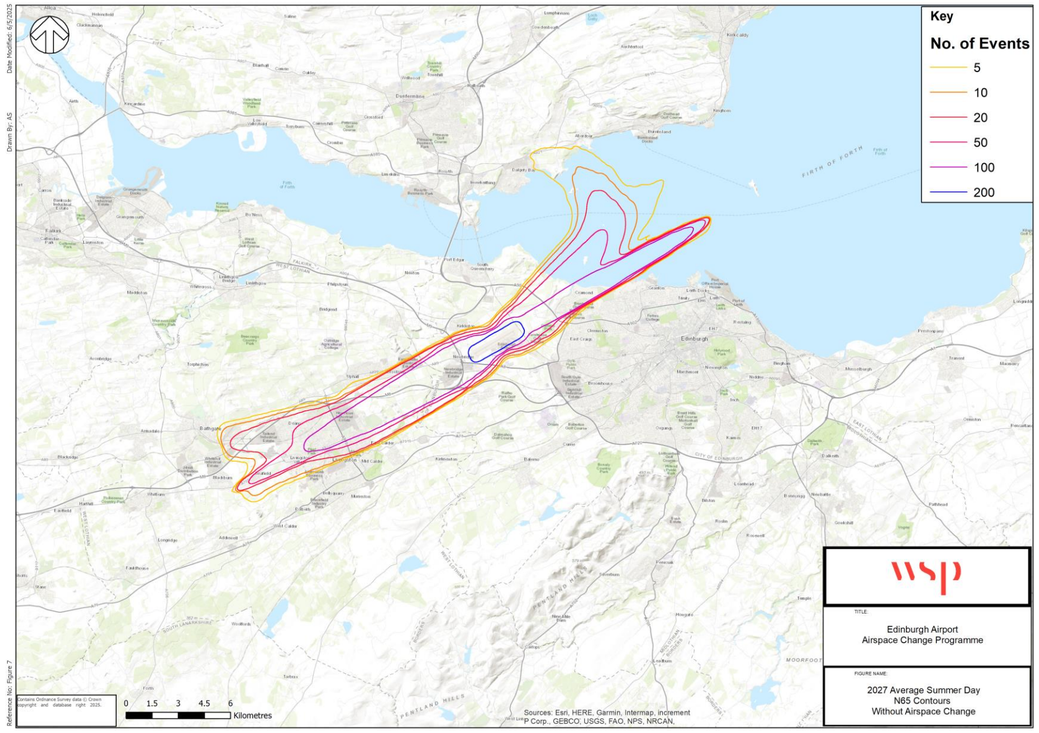


Figure 21: N65 Daytime "Without Airspace Change" Baseline, 2027

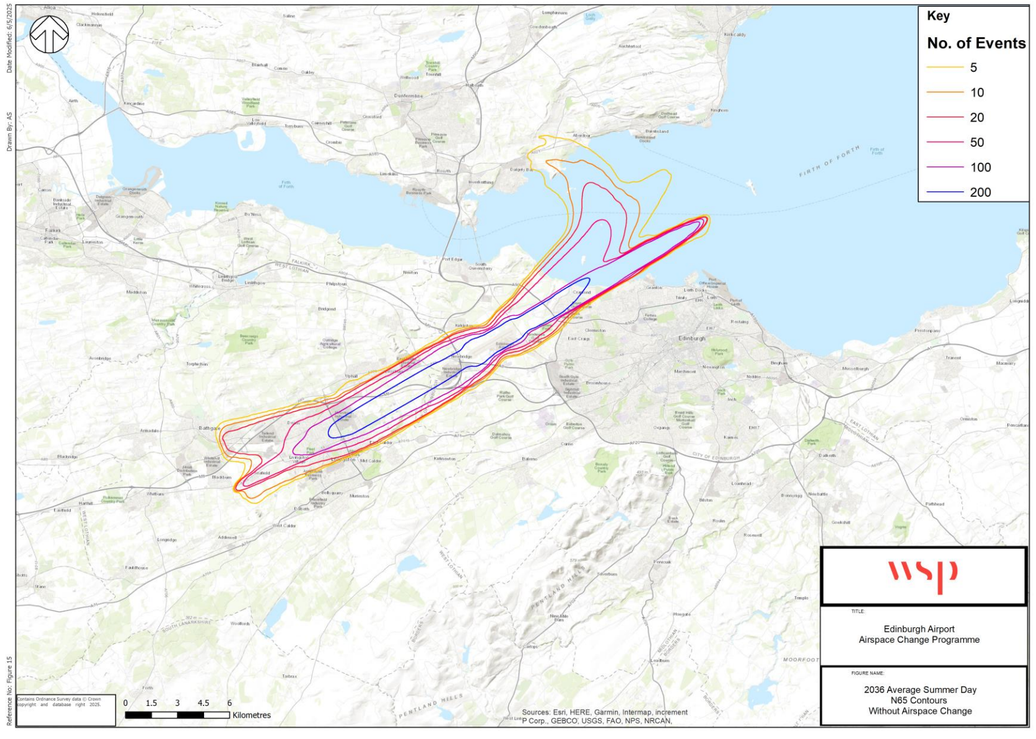


Figure 22: N65 Daytime "Without Airspace Change" Baseline, 2036

2.3 Overflight Contours for Baseline

Overflight contours for the ‘without airspace change’ baseline are provided below.

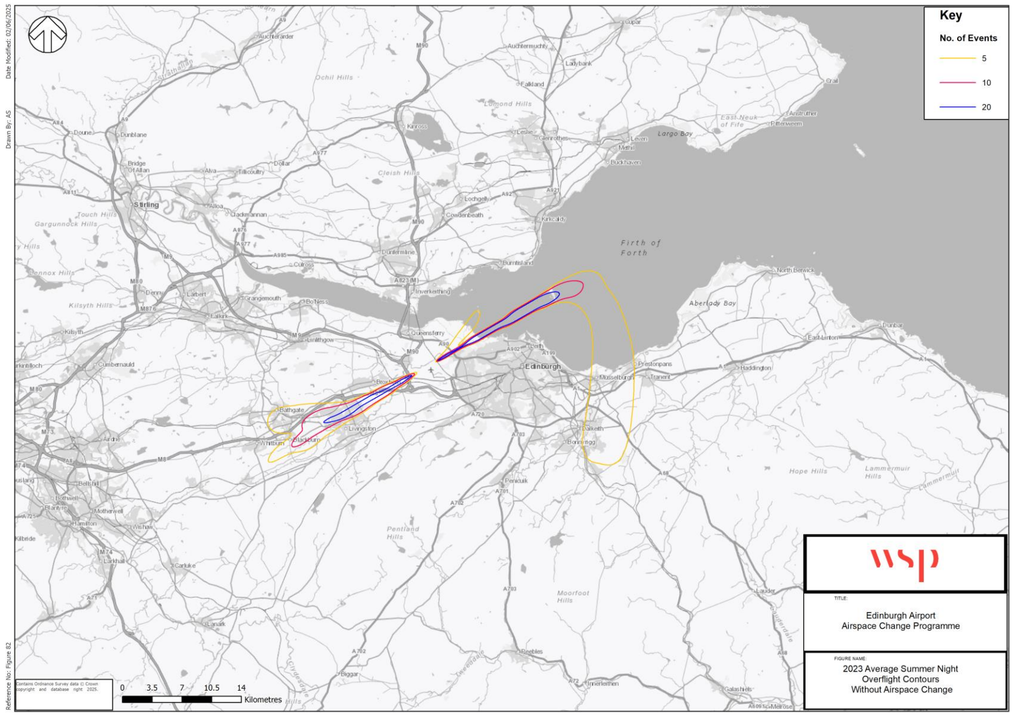


Figure 23: Overflight Night-Time "Without Airspace Change" Baseline, Current Day

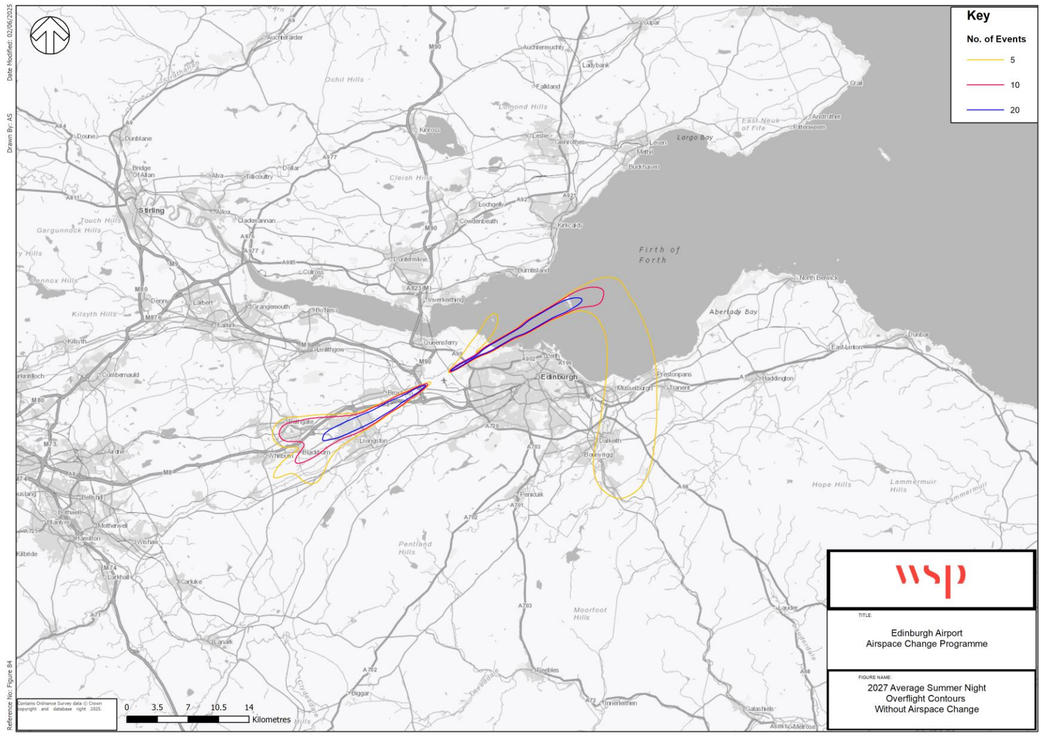


Figure 24: Overflight Night-Time "Without Airspace Change" Baseline, 2027

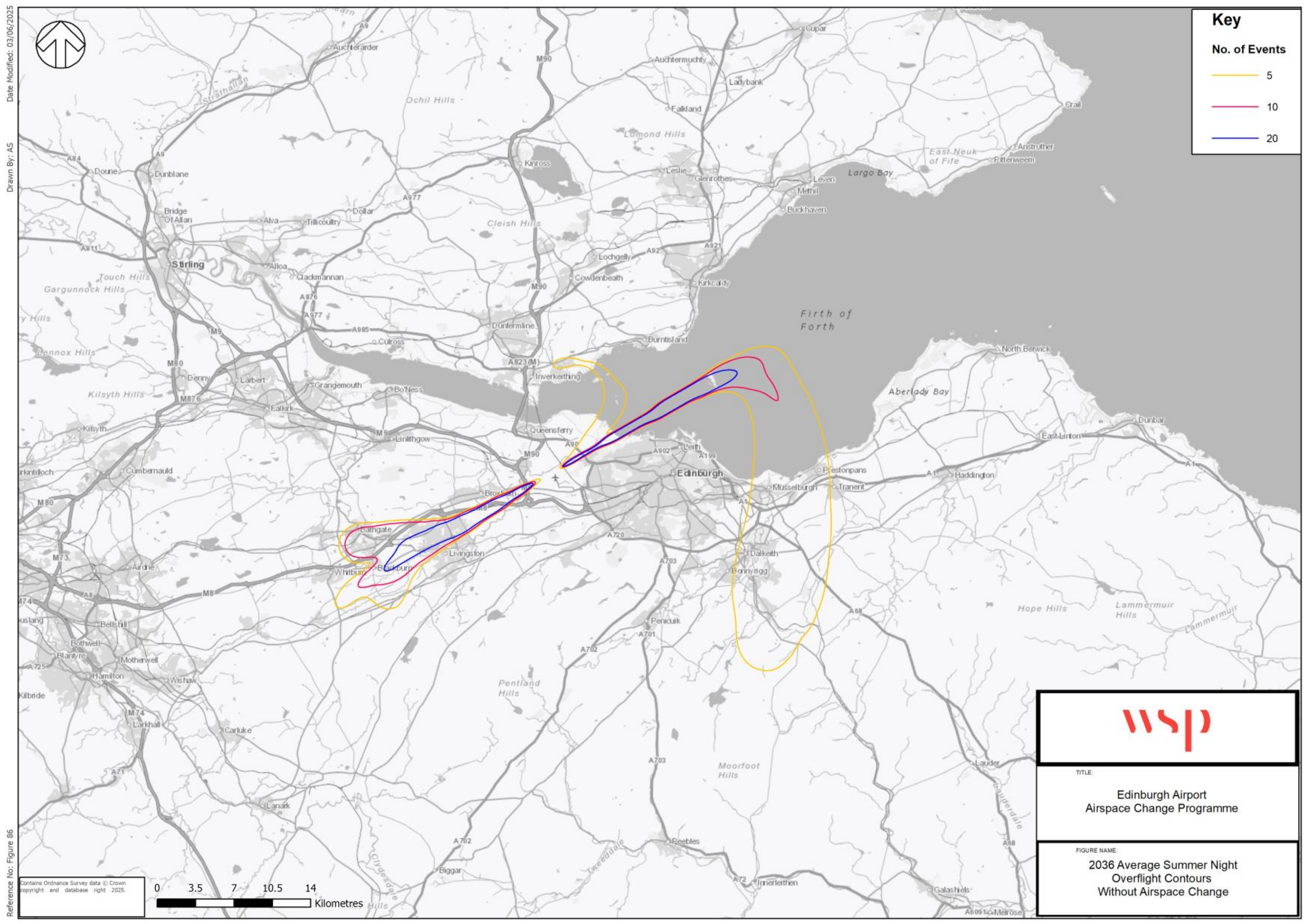


Figure 25: Overflight Night-Time "Without Airspace Change" Baseline, 2036

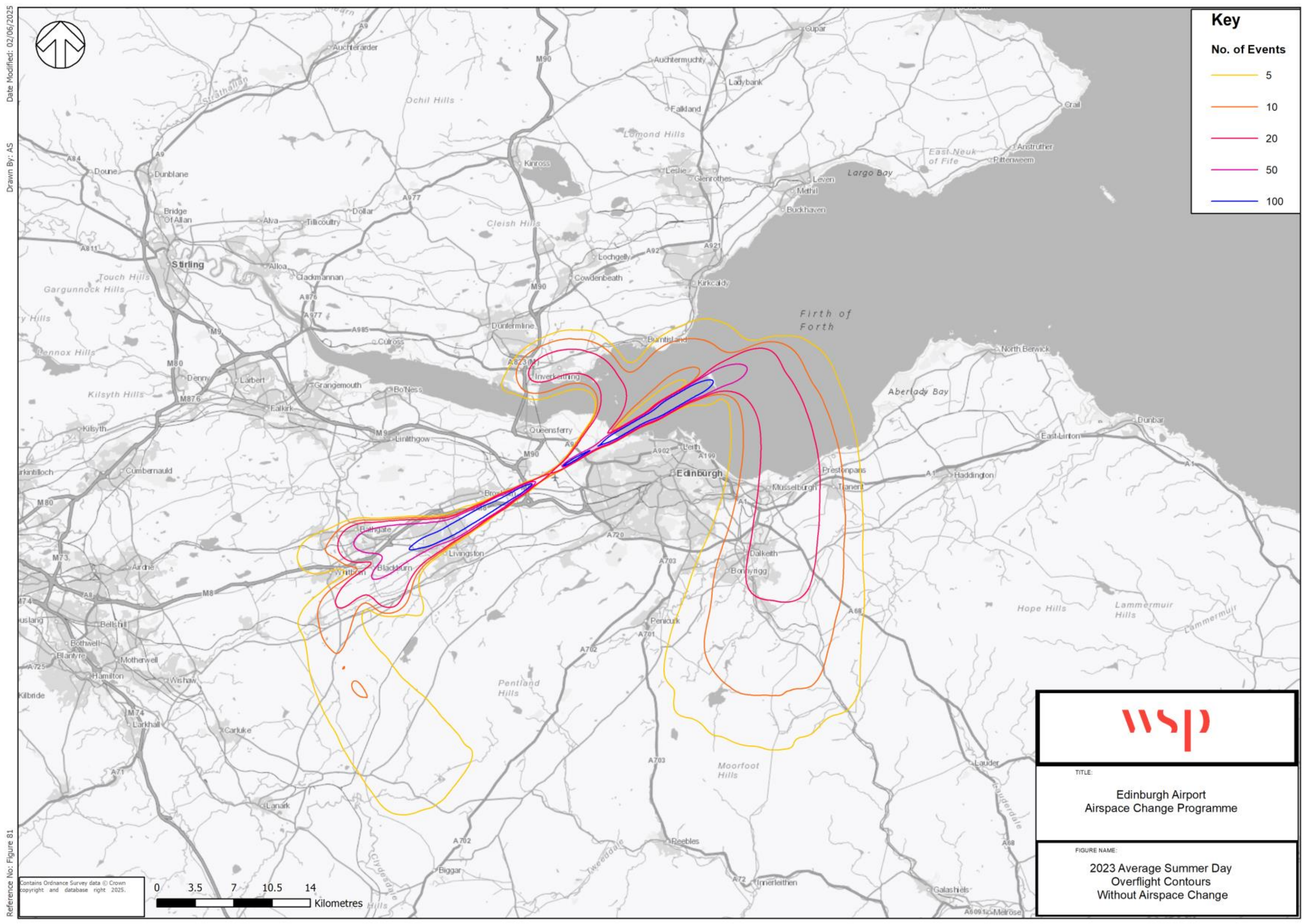


Figure 26: Overflight Daytime "Without Airspace Change" Baseline, Current Day

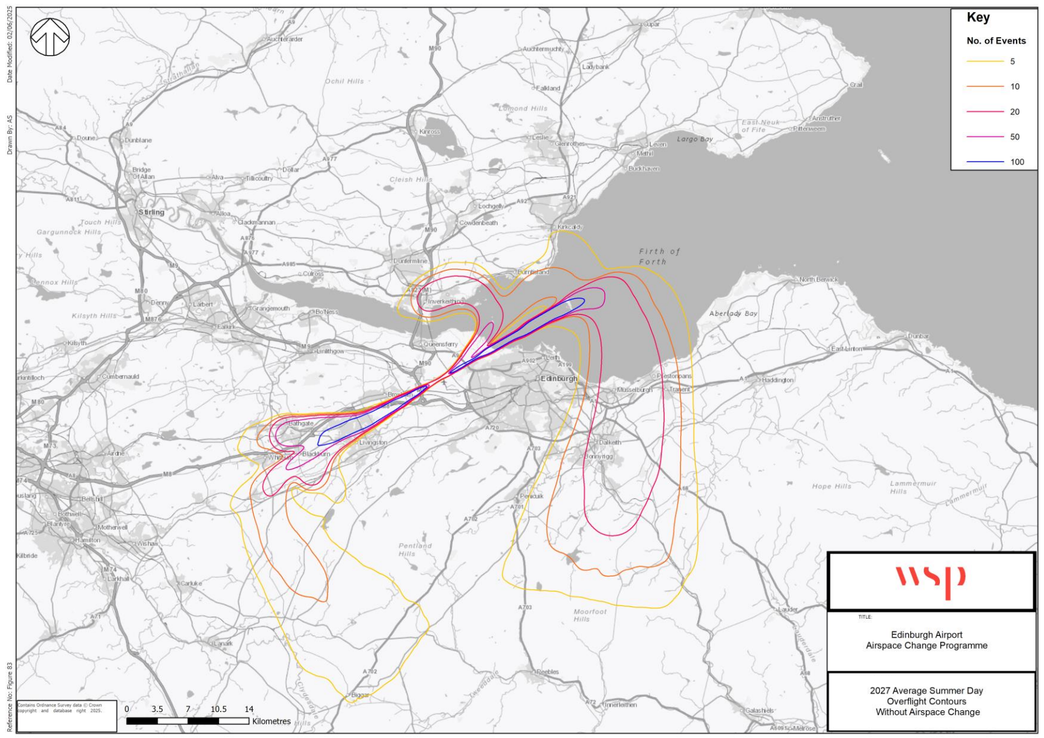


Figure 27: Overflight Daytime "Without Airspace Change" Baseline, 2027

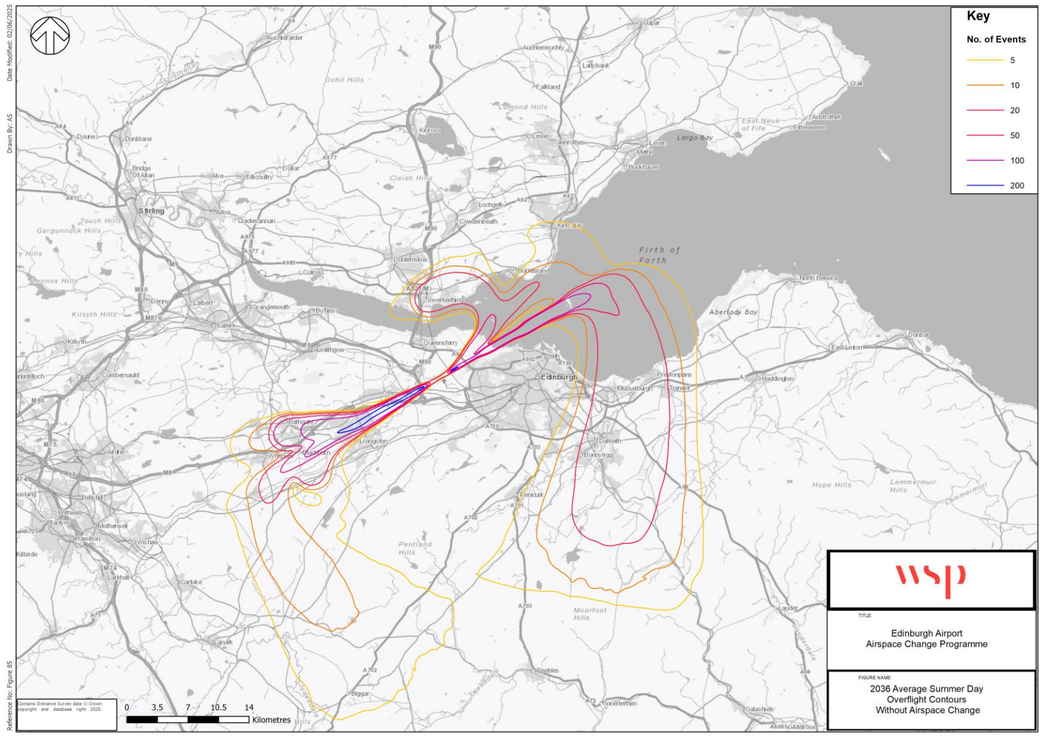


Figure 28: Overflight Daytime "Without Airspace Change" Baseline, 2036

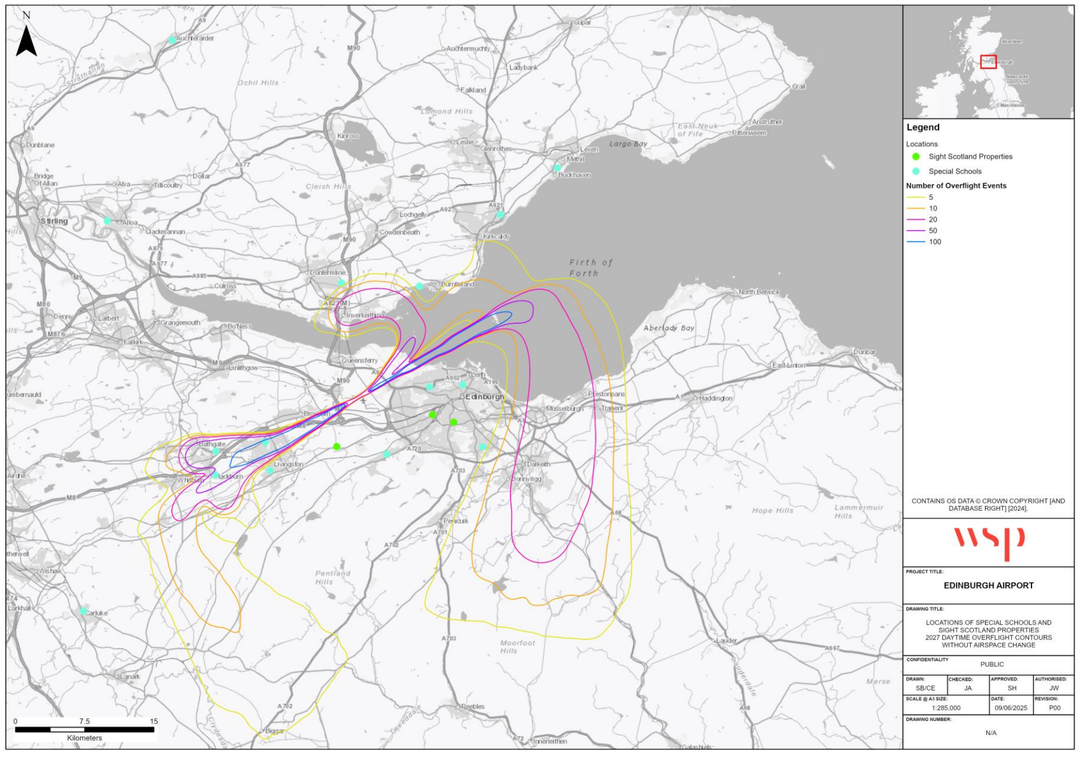


Figure 29: Special Schools and Sight Scotland Sites Overflight Daytime "Without Airspace Change" Baseline, 2027

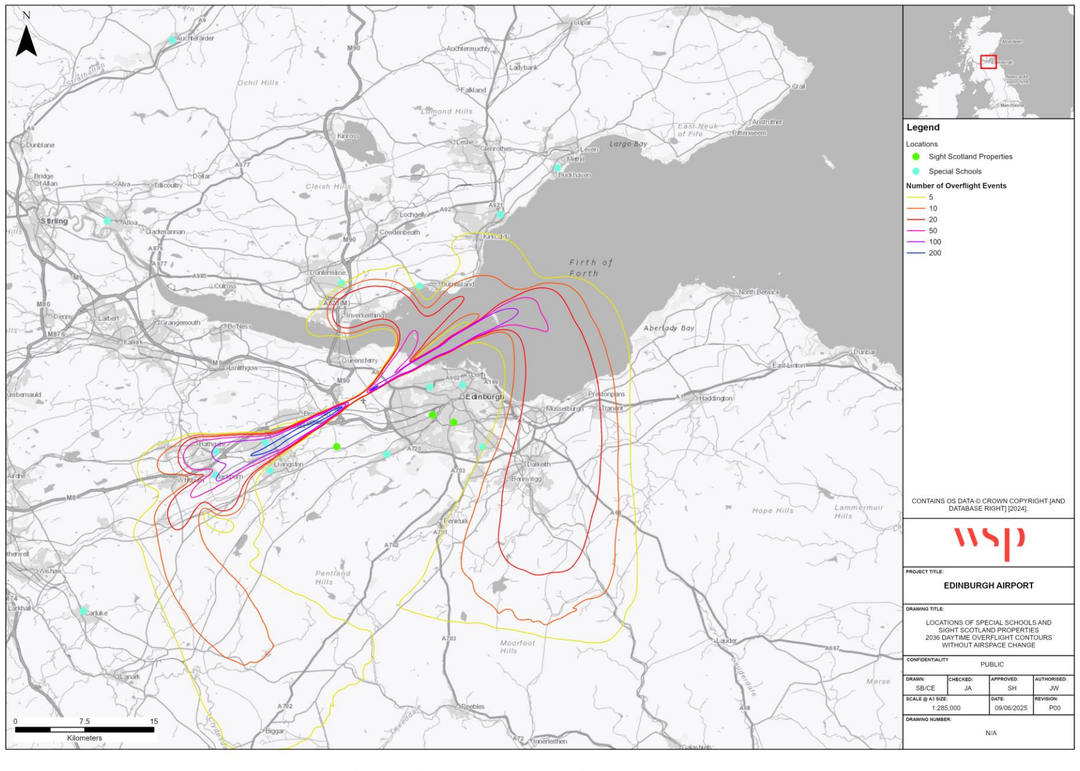


Figure 30: Special Schools and Sight Scotland Sites Overflight Daytime "Without Airspace Change" Baseline, 2036

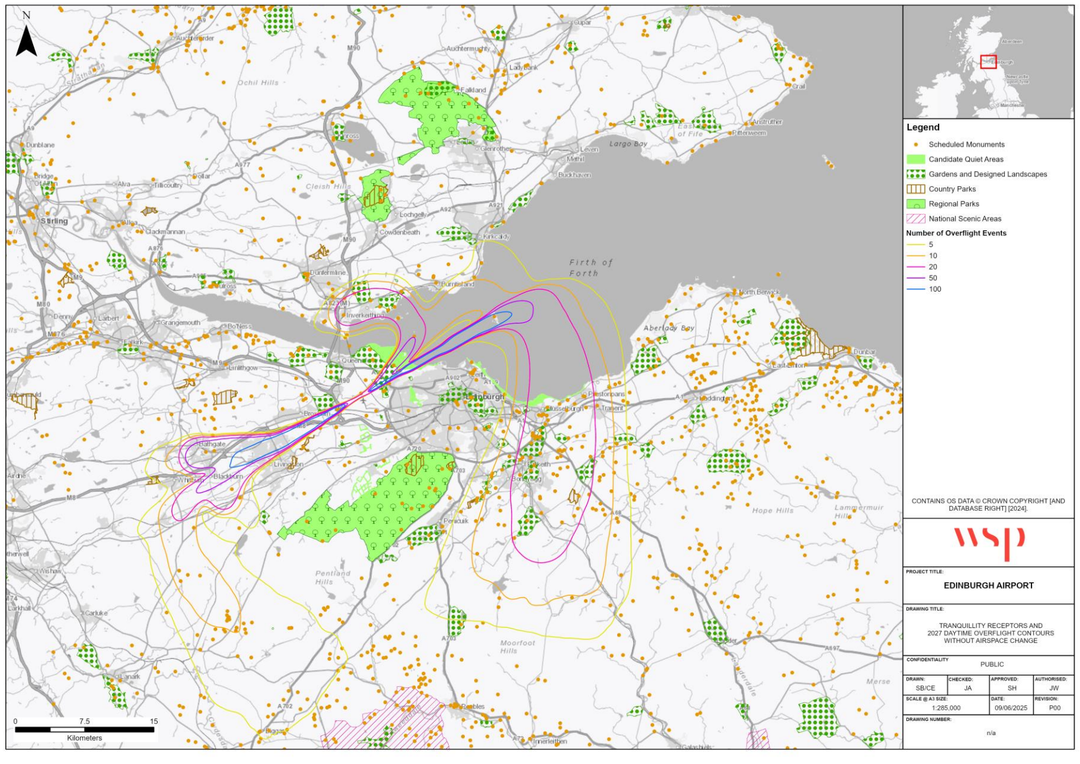


Figure 31: Tranquillity Receptors Overflight Daytime "Without Airspace Change" Baseline, 2027

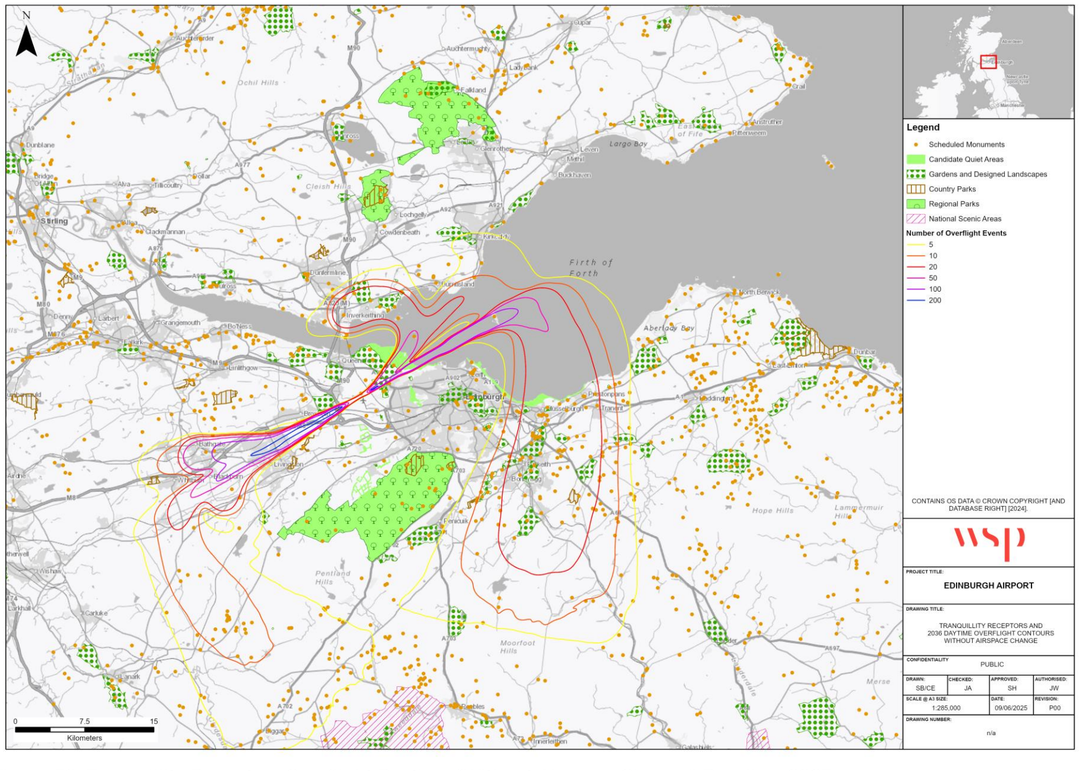


Figure 32: Tranquillity Receptors Overflight Daytime "Without Airspace Change" Baseline, 2027

2.4 Baseline 100% Mode Noise Tables for $L_{Aeq,\ 16hr}$ and $L_{Aeq,\ 8hr}$

$L_{Aeq,\ 16Hr}$ and $L_{Aeq,\ 8Hr}$ noise 100% mode contour tables for the "without airspace change" baseline are provided below. $L_{Aeq,\ 16Hr}$, $L_{Aeq,\ 8Hr}$, N65, N60, Overflight Day and Overflight Night Tables are provided in the Section 4 of the FOA.

Table 1: LAeq, 16 Hr, Day-Time 100% West "Without Airspace Change" Baseline, 2027

Year	Scenario	Metric	Contour (dB)	Area (km^2)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2027	Without Airspace Change	100% west $L_{Aeq,16hr}$	51	62.8	66,800	30,200	6	1	5	16	174
			54	37.3	17,700	8,100	3	0	1	6	132
			57	21.0	4,700	2,300	1	0	0	2	69
			60	11.2	2,900	1,400	1	0	0	1	36
			63	5.8	1,000	500	0	0	0	0	9
			66	3.0	200	100	0	0	0	0	1
			69	1.6	<100	<100	0	0	0	0	0

Table 2: LAeq, 16 Hr, Day-Time 100% West "Without Airspace Change" Baseline, 2036

Year	Scenario	Metric	Contour (dB)	Area (km^2)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2036	Without Airspace Change	100% west $L_{Aeq,16hr}$	51	73.1	72,900	33,000	7	1	5	19	182
			54	43.3	41,200	18,700	5	0	1	6	144
			57	25.0	6,600	3,100	1	0	0	2	82
			60	13.4	3,200	1,500	1	0	0	1	46
			63	7.0	1,900	900	1	0	0	1	15
			66	3.6	400	200	0	0	0	0	2
			69	1.9	100	<100	0	0	0	0	0

Table 3: LAeq, 16 Hr, Day-Time 100% East "Without Airspace Change" Baseline, 2027

Year	Scenario	Metric	Contour (dB)	Area (km^2)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2027	Without Airspace Change	100% east $L_{Aeq,16hr}$	51	61.8	28,700	13,200	6	1	3	7	153
			54	36.9	18,500	8,500	4	1	1	4	111
			57	21.4	5,700	2,700	0	0	0	2	70
			60	11.6	800	400	0	0	0	0	25
			63	6.1	500	200	0	0	0	0	18
			66	3.0	100	<100	0	0	0	0	4
			69	1.6	<100	<100	0	0	0	0	0

Table 4: LAeq, 16 Hr, Day-Time 100% East "Without Airspace Change" Baseline, 2036

Year	Scenario	Metric	Contour (dB)	Area (km^2)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2036	Without Airspace Change	100% east $L_{Aeq,16hr}$	51	71.9	33,300	15,300	8	1	3	9	158
			54	42.9	20,200	9,300	6	1	2	4	122
			57	25.2	8,500	3,900	0	0	0	4	81
			60	13.8	1,500	700	0	0	0	0	29
			63	7.4	500	200	0	0	0	0	21
			66	3.6	200	100	0	0	0	0	11
			69	1.9	100	<100	0	0	0	0	0

Table 5: LAeq, 8 Hr, Night-Time 100% West "Without Airspace Change" Baseline, 2027

Year	Scenario	Metric	Contour (dB)	Area (km^2)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2027	Without Airspace Change	100% west $L_{Aeq,8hr}$	45	78.3	74,300	33,600	7	1	6	19	207
			48	46.7	43,300	19,600	5	1	2	9	145
			51	27.3	7,000	3,300	1	0	0	2	100
			54	14.5	3,400	1,700	1	0	0	1	57
			57	7.4	2,600	1,300	1	0	0	1	23
			60	3.7	600	300	0	0	0	0	4
			63	1.9	<100	<100	0	0	0	0	0
			66	1.0	0	0	0	0	0	0	0

Table 6: LAeq, 8 Hr, Night-Time 100% West "Without Airspace Change" Baseline, 2036

Year	Scenario	Metric	Contour (dB)	Area (km²)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2036	Without Airspace Change	100% west $L_{Aeq,8hr}$	45	90.1	82,900	37,500	7	1	6	21	224
			48	53.9	53,100	24,100	5	1	3	12	152
			51	32.1	9,000	4,200	3	0	1	2	111
			54	17.5	3,700	1,800	1	0	0	2	66
			57	9.0	2,800	1,400	1	0	0	1	35
			60	4.5	1,300	600	1	0	0	1	9
			63	2.3	100	<100	0	0	0	0	0
			66	1.1	0	0	0	0	0	0	0

Table 7: LAeq, 8 Hr, Night-Time 100% East "Without Airspace Change" Baseline, 2027

Year	Scenario	Metric	Contour (dB)	Area (km²)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2027	Without Airspace Change	100% east $L_{Aeq,8hr}$	45	77.0	39,900	18,300	8	1	4	10	181
			48	46.4	23,400	10,700	6	1	2	6	119
			51	27.3	12,400	5,700	2	0	1	4	85
			54	15.2	2,700	1,300	0	0	0	0	29
			57	8.2	500	300	0	0	0	0	20
			60	3.9	300	100	0	0	0	0	9
			63	1.9	100	<100	0	0	0	0	0
			66	1.0	<100	<100	0	0	0	0	0

Table 8: LAeq, 8 Hr, Night-Time 100% East "Without Airspace Change" Baseline, 2036

Year	Scenario	Metric	Contour (dB)	Area (km²)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2036	Without Airspace Change	100% east $L_{Aeq,8hr}$	45	88.6	44,500	20,400	8	1	5	10	193
			48	53.3	27,500	12,600	6	1	2	6	132
			51	31.8	16,500	7,600	4	1	1	4	97
			54	18.0	4,900	2,300	0	0	0	2	54
			57	9.8	700	300	0	0	0	0	24
			60	4.8	300	100	0	0	0	0	14
			63	2.3	100	<100	0	0	0	0	1
			66	1.2	100	<100	0	0	0	0	0

2.6 Baseline Tranquillity Tables for $L_{Aeq, 8hr}$, N65, N60 and Overflights Night-Time

$L_{Aeq, 8Hr}$, N65, N60 and Overflight Night tables for the "without airspace change" baseline in relation to tranquillity sites are provided below. $L_{Aeq, 16Hr}$, and Daytime Overflight Tables are provided in Section 4 of the FOA.

Table 9: Tranquillity Sites, $L_{Aeq, 8 Hr}$, Night-Time "Without Airspace Change" Baseline, Current Day

Year	Scenario	Metric	Contour (dB)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2023	Without Airspace Change	L_{Aeq8hr}	45	1	0.2	2	3.5	5	5.8	0	0.0	0	0.0	11	0.3
			48	1	0.0	2	1.6	4	4.3	0	0.0	0	0.0	8	0.2
			51	0	0.0	2	0.8	4	2.5	0	0.0	0	0.0	6	0.1
			54	0	0.0	1	0.3	3	1.3	0	0.0	0	0.0	5	0.1
			57	0	0.0	0	0.0	2	0.7	0	0.0	0	0.0	3	0.0
			60	0	0.0	0	0.0	2	0.3	0	0.0	0	0.0	3	0.0
			63	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	2	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 10: Tranquillity Sites, $L_{Aeq, 8 Hr}$, Night-Time "Without Airspace Change" Baseline, 2027

Year	Scenario	Metric	Contour (dB)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Without Airspace Change	L_{Aeq8hr}	45	1	0.3	2	4.2	5	6.4	0	0.0	0	0.0	12	0.3
			48	1	0.0	2	2.8	4	4.9	0	0.0	0	0.0	8	0.2
			51	0	0.0	2	1.0	4	3.3	0	0.0	0	0.0	6	0.2
			54	0	0.0	2	0.4	3	1.7	0	0.0	0	0.0	5	0.1
			57	0	0.0	0	0.0	2	0.8	0	0.0	0	0.0	5	0.0
			60	0	0.0	0	0.0	2	0.4	0	0.0	0	0.0	3	0.0
			63	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	2	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 11: Tranquillity Sites, $L_{Aeq,\ 8\ Hr}$, Night-Time "Without Airspace Change" Baseline, 2036

Year	Scenario	Metric	Contour (dB)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Without Airspace Change	L_{Aeq8hr}	45	1	0.3	2	4.5	5	6.9	0	0.0	0	0.0	15	0.4
			48	1	0.1	2	3.4	4	5.3	0	0.0	0	0.0	10	0.3
			51	0	0.0	2	1.2	4	3.8	0	0.0	0	0.0	7	0.2
			54	0	0.0	2	0.6	3	2.0	0	0.0	0	0.0	5	0.1
			57	0	0.0	0	0.0	3	1.0	0	0.0	0	0.0	5	0.1
			60	0	0.0	0	0.0	2	0.5	0	0.0	0	0.0	3	0.0
			63	0	0.0	0	0.0	1	0.2	0	0.0	0	0.0	2	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0

Table 12: Tranquillity Sites, N65 Daytime "Without Airspace Change" Baseline, Current Day

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2023	Without Airspace Change	N65 (day)	5	1	0.3	2	5.6	5	8.5	0	0.0	0	0.0	17	0.5
			10	1	0.3	2	5.3	4	7.0	0	0.0	0	0.0	14	0.3
			20	1	0.2	2	4.6	4	6.3	0	0.0	0	0.0	12	0.3
			50	1	0.0	2	1.4	4	3.5	0	0.0	0	0.0	7	0.2
			100	0	0.0	2	1.0	4	2.3	0	0.0	0	0.0	6	0.2
			200	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0

Table 13: Tranquillity Sites, N65 Daytime "Without Airspace Change" Baseline, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Without Airspace Change	N65 (day)	5	1	0.3	2	5.7	5	9.8	0	0.0	0	0.0	19	0.5
			10	1	0.3	2	5.4	4	7.2	0	0.0	0	0.0	15	0.3
			20	1	0.3	2	4.9	4	6.7	0	0.0	0	0.0	12	0.3
			50	1	0.1	2	3.9	4	5.5	0	0.0	0	0.0	11	0.3
			100	1	0.0	2	1.2	4	3.0	0	0.0	0	0.0	6	0.2
			200	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0

Table 14: Tranquillity Sites, N65 Daytime "Without Airspace Change" Baseline, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Without Airspace Change	N65 (day)	5	1	0.4	2	5.8	7	10.1	0	0.0	0	0.0	19	0.5
			10	1	0.3	2	5.5	5	7.7	0	0.0	0	0.0	16	0.4
			20	1	0.3	2	5.1	4	6.8	0	0.0	0	0.0	14	0.3
			50	1	0.1	2	4.2	4	5.9	0	0.0	0	0.0	12	0.3
			100	1	0.0	2	1.3	4	3.2	0	0.0	0	0.0	7	0.2
			200	0	0.0	2	0.3	4	1.8	0	0.0	0	0.0	5	0.1

Table 15: Tranquillity Sites, N60 Night-Time "Without Airspace Change" Baseline, Current Day

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2023	Without Airspace Change	N60 (night)	5	2	0.5	2	5.1	5	7.9	0	0.0	0	0.0	17	0.7
			10	1	0.3	2	2.0	5	5.1	0	0.0	0	0.0	12	0.5
			20	0	0.0	2	1.8	5	3.1	0	0.0	0	0.0	8	0.3
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0

Table 16: Tranquillity Sites, N60 Night-Time "Without Airspace Change" Baseline, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Without Airspace Change	N60 (night)	5	2	0.5	2	5.5	5	8.2	0	0.0	0	0.0	18	0.7
			10	1	0.3	2	2.1	5	5.4	0	0.0	0	0.0	13	0.6
			20	1	0.1	2	1.9	5	4.3	0	0.0	0	0.0	10	0.4
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0

Table 17: Tranquillity Sites, N60 Night-Time "Without Airspace Change" Baseline, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Without Airspace Change	N60 (night)	5	2	0.5	2	5.7	5	8.4	0	0.0	0	0.0	18	0.9
			10	2	0.4	2	2.4	5	6.1	0	0.0	0	0.0	15	0.6
			20	1	0.2	2	2.0	5	4.8	0	0.0	0	0.0	11	0.5
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0

Table 18: Tranquillity Sites, Overflight Night-Time, "Without Airspace Change" Baseline, Current Day

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2023	Without Airspace Change	Overflights Night	5	1	0.1	2	3.4	7	8.8	0	0.0	0	0.0	47	1.9
			10	0	0.0	1	0.6	2	0.5	0	0.0	0	0.0	5	0.4
			20	0	0.0	1	0.4	2	0.2	0	0.0	0	0.0	4	0.2

Table 19: Tranquillity Sites, Overflight Night-Time, "Without Airspace Change" Baseline, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Without Airspace Change	Overflights Night	5	1	1.0	2	4.1	9	12.4	0	0.0	0	0.0	59	2.2
			10	0	0.0	1	0.7	2	0.6	0	0.0	0	0.0	7	0.4
			20	0	0.0	1	0.5	2	0.3	0	0.0	0	0.0	4	0.3

Table 20: Tranquillity Sites, Overflight Night-Time, "Without Airspace Change" Baseline, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Without Airspace Change	Overflights Night	5	1	1.0	2	4.8	14	18.8	0	0.0	0	0.0	71	2.8
			10	0	0.0	1	0.7	2	0.7	0	0.0	0	0.0	7	0.5
			20	0	0.0	1	0.5	2	0.4	0	0.0	0	0.0	5	0.4

2.8 Baseline Biodiversity Tables for $L_{Aeq, 16hr}$, $L_{Aeq, 8hr}$, N65, N60 and Day/Night Overflight contours

1. Data relating to biodiversity site within the $L_{Aeq, 16hr}$, $L_{Aeq, 8hr}$, N65, N60 and Day/Night overflight contours for the "without airspace change" baseline are provided below. The overflight Tables include additional data not shown in the main report (relating to Local nature Reserves, National Nature Reserves and SSSI).

Table 21: Biodiversity Sites in Relation to $L_{Aeq, 16hr}$, Daytime "Without Airspace Change" Baseline, Current Day

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2023	Without Airspace Change	L_{Aeq}16hr	51	1	0.2	0	0.0	1	3.3	0	0.0	3	9.4	1	3.3
			54	1	0.0	0	0.0	1	0.9	0	0.0	3	2.4	1	0.9
			57	0	0.0	0	0.0	1	0.2	0	0.0	1	0.2	1	0.2
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			69	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 22: Biodiversity Sites in Relation to $L_{Aeq, 16hr}$, Daytime "Without Airspace Change" Baseline, 2027

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Without Airspace Change	L_{Aeq}16hr	51	1	0.3	0	0.0	1	4.0	0	0.0	3	16.4	1	4.0
			54	1	0.1	0	0.0	1	2.0	0	0.0	3	5.1	1	2.0
			57	1	0.0	0	0.0	1	0.5	0	0.0	2	0.8	1	0.5
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			69	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 23: Biodiversity Sites in Relation to $L_{Aeq,\ 16hr}$, Daytime "Without Airspace Change" Baseline, 2036

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Without Airspace Change	L_{Aeq}16hr	51	2	0.4	0	0.0	1	4.3	0	0.0	3	21.4	1	4.3
			54	1	0.1	0	0.0	1	2.9	0	0.0	3	7.3	1	2.9
			57	1	0.0	0	0.0	1	0.7	0	0.0	2	1.4	1	0.7
			60	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	1	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			69	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 24: Biodiversity Sites in Relation to $L_{Aeq,\ 8hr}$, Night-Time "Without Airspace Change" Baseline, Current Day

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2023	Without Airspace Change	L_{Aeq}8hr	45	1	0.2	0	0.0	1	3.4	0	0.0	3	17.2	1	3.5
			48	1	0.1	0	0.0	1	1.5	0	0.0	3	7.3	1	1.5
			51	1	0.0	0	0.0	1	0.8	0	0.0	3	2.4	1	0.8
			54	0	0.0	0	0.0	1	0.3	0	0.0	1	0.3	1	0.3
			57	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 25: Biodiversity Sites in Relation to $L_{Aeq, 8hr}$, Night-Time "Without Airspace Change" Baseline, 2027

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Without Airspace Change	L_{Aeq}8hr	45	2	0.7	0	0.0	1	4.1	0	0.0	3	24.2	2	4.2
			48	1	0.2	0	0.0	1	2.8	0	0.0	3	9.5	1	2.8
			51	1	0.0	0	0.0	1	1.0	0	0.0	3	3.2	1	1.0
			54	0	0.0	0	0.0	1	0.4	0	0.0	2	0.5	1	0.4
			57	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 26: Biodiversity Sites in Relation to $L_{Aeq, 8hr}$, Night-Time "Without Airspace Change" Baseline, 2036

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Without Airspace Change	L_{Aeq}8hr	45	2	1.0	0	0.0	1	4.4	0	0.0	3	30.0	3	4.6
			48	1	0.2	0	0.0	1	3.4	0	0.0	3	12.3	1	3.4
			51	1	0.1	0	0.0	1	1.2	0	0.0	3	4.5	1	1.2
			54	0	0.0	0	0.0	1	0.6	0	0.0	2	0.9	1	0.6
			57	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 27: Biodiversity Sites in Relation to N65, Daytime "Without Airspace Change" Baseline, Current Day

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2023	Without Airspace Change	N65 (day)	5	2	0.9	0	0.0	3	5.8	0	0.0	5	51.4	11	6.2
			10	2	0.7	0	0.0	1	5.2	0	0.0	3	38.7	4	5.5
			20	2	0.5	0	0.0	1	4.5	0	0.0	3	25.7	3	4.6
			50	1	0.1	0	0.0	1	1.4	0	0.0	3	8.7	1	1.4
			100	1	0.0	0	0.0	1	1.0	0	0.0	3	3.0	1	1.0
			200	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 28: Biodiversity Sites in Relation to N65, Daytime "Without Airspace Change" Baseline, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Without Airspace Change	N65 (day)	5	2	1.0	0	0.0	3	6.1	0	0.0	5	56.4	11	6.5
			10	2	0.8	0	0.0	1	5.3	0	0.0	3	43.8	5	5.7
			20	2	0.5	0	0.0	1	4.8	0	0.0	3	31.5	4	5.2
			50	2	0.2	0	0.0	1	3.8	0	0.0	3	15.9	1	3.8
			100	1	0.1	0	0.0	1	1.2	0	0.0	3	7.3	1	1.2
			200	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 29: Biodiversity Sites in Relation to N65, Daytime "Without Airspace Change" Baseline, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Without Airspace Change	N65 (day)	5	2	1.1	0	0.0	3	6.3	0	0.0	5	60.6	12	6.7
			10	2	0.9	0	0.0	2	5.6	0	0.0	4	47.6	10	6.0
			20	2	0.6	0	0.0	1	5.0	0	0.0	3	35.2	4	5.4
			50	2	0.3	0	0.0	1	4.1	0	0.0	3	19.4	2	4.2
			100	1	0.1	0	0.0	1	1.3	0	0.0	3	8.1	1	1.3
			200	1	0.0	0	0.0	1	0.3	0	0.0	1	0.3	1	0.3

Table 30: Biodiversity Sites in Relation to N60, Night-Time "Without Airspace Change" Baseline, Current Day

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2023	Without Airspace Change	N60 (night)	5	2	1.8	0	0.0	1	5.0	0	0.0	3	45.5	7	5.4
			10	2	1.0	0	0.0	1	2.0	0	0.0	3	24.1	3	2.2
			20	1	0.2	0	0.0	1	1.8	0	0.0	3	18.9	1	1.8
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 31: Biodiversity Sites in Relation to N60, Night-Time "Without Airspace Change" Baseline, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Without Airspace Change	N60 (night)	5	2	1.8	0	0.0	1	5.4	0	0.0	3	55.1	8	5.8
			10	2	1.3	0	0.0	1	2.0	0	0.0	3	25.6	3	2.3
			20	2	0.4	0	0.0	1	1.9	0	0.0	3	20.9	1	1.9
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 32: Biodiversity Sites in Relation to N60, Night-Time "Without Airspace Change" Baseline, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Without Airspace Change	N60 (night)	5	2	1.8	0	0.0	1	5.6	0	0.0	3	62.6	8	6.0
			10	2	1.6	0	0.0	1	2.3	0	0.0	3	27.3	3	2.6
			20	2	0.8	0	0.0	1	1.9	0	0.0	3	22.2	2	1.9
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

3 Additional Figures and Tables for Option 1

3.1 L_{Aeq} Contours For Option 1

The main document presents data tables for L_{Aeq} Contours. The Figures below present the contours themselves.

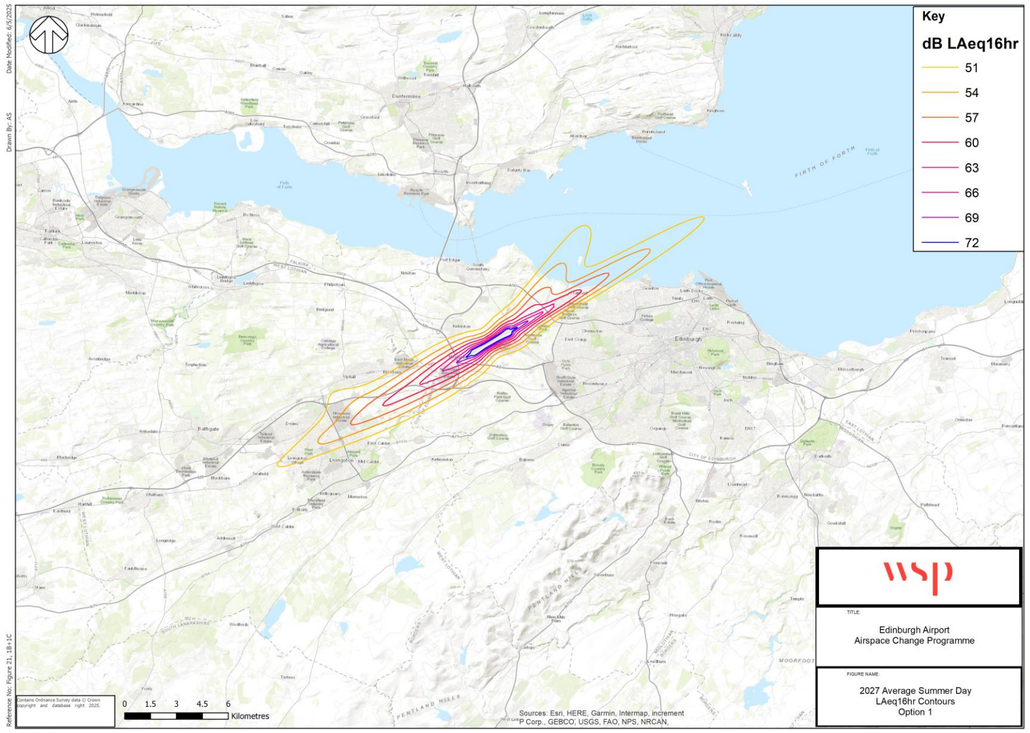


Figure 33: $L_{Aeq,\ 16\ Hr}$, Daytime Option 1, 2027

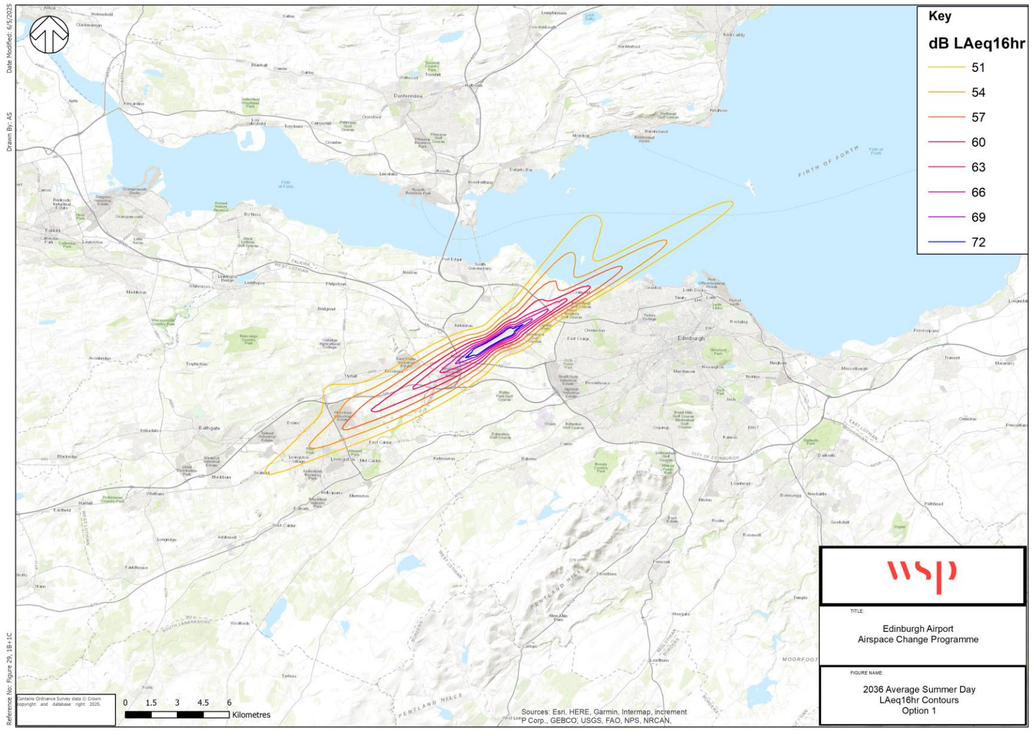


Figure 34: $L_{Aeq,\ 16\ Hr}$, Daytime Option 1, 2036

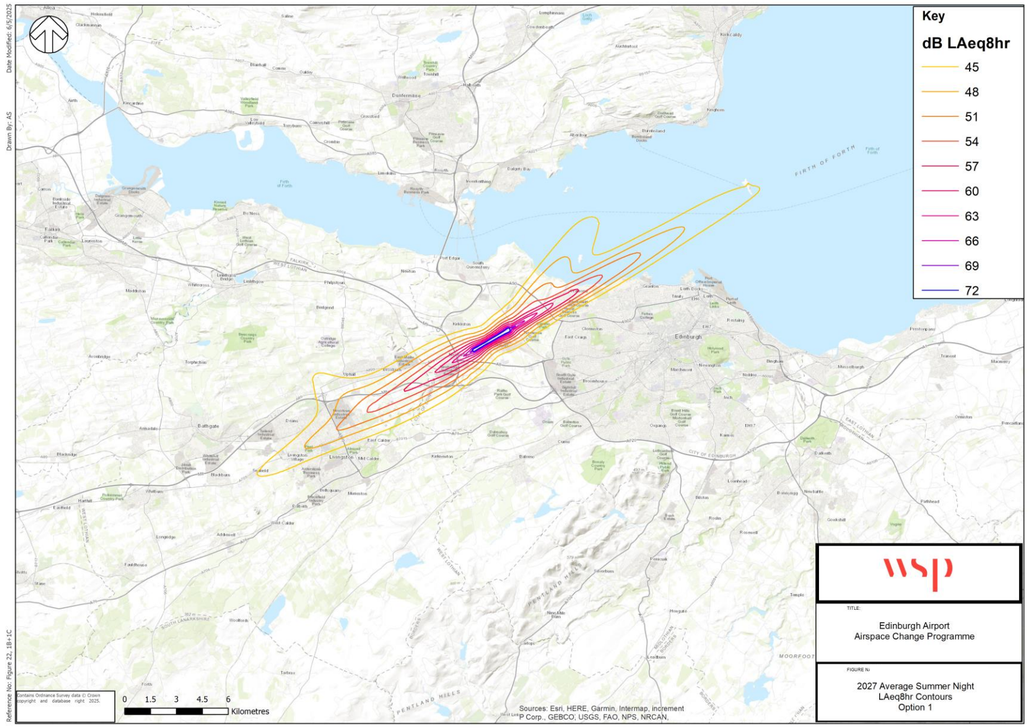


Figure 35: $L_{Aeq,\,8\,Hr}$, Night-Time Option 1, 2027

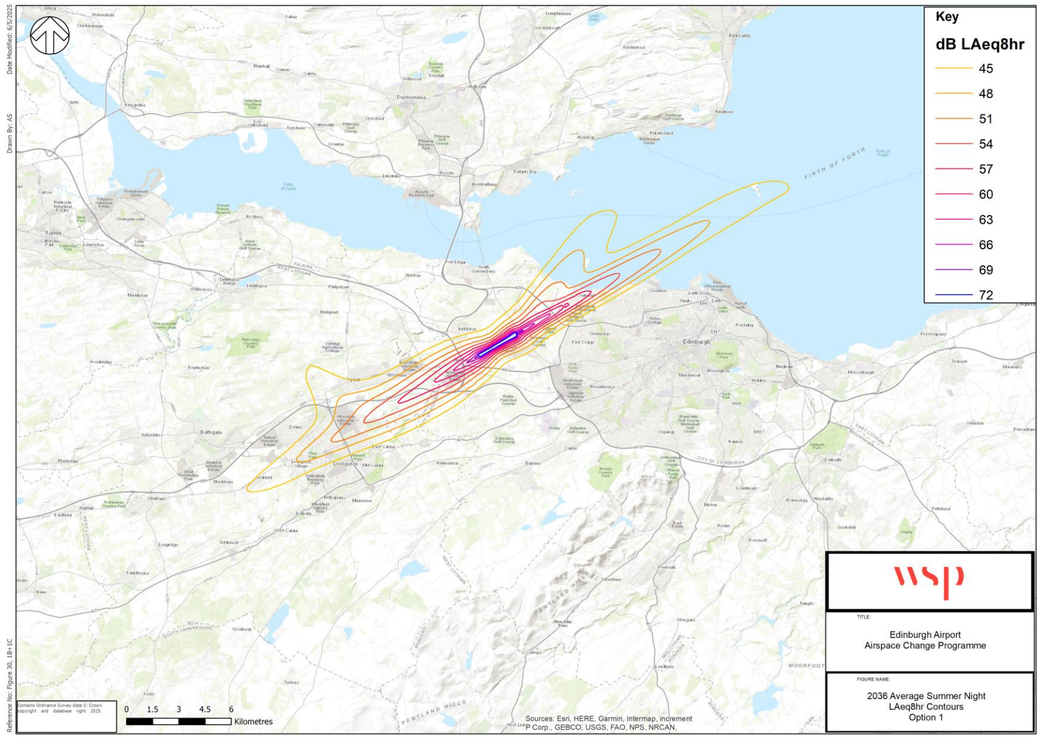


Figure 36: $L_{Aeq,\,8\,Hr}$, Night-Time Option 1, 2036

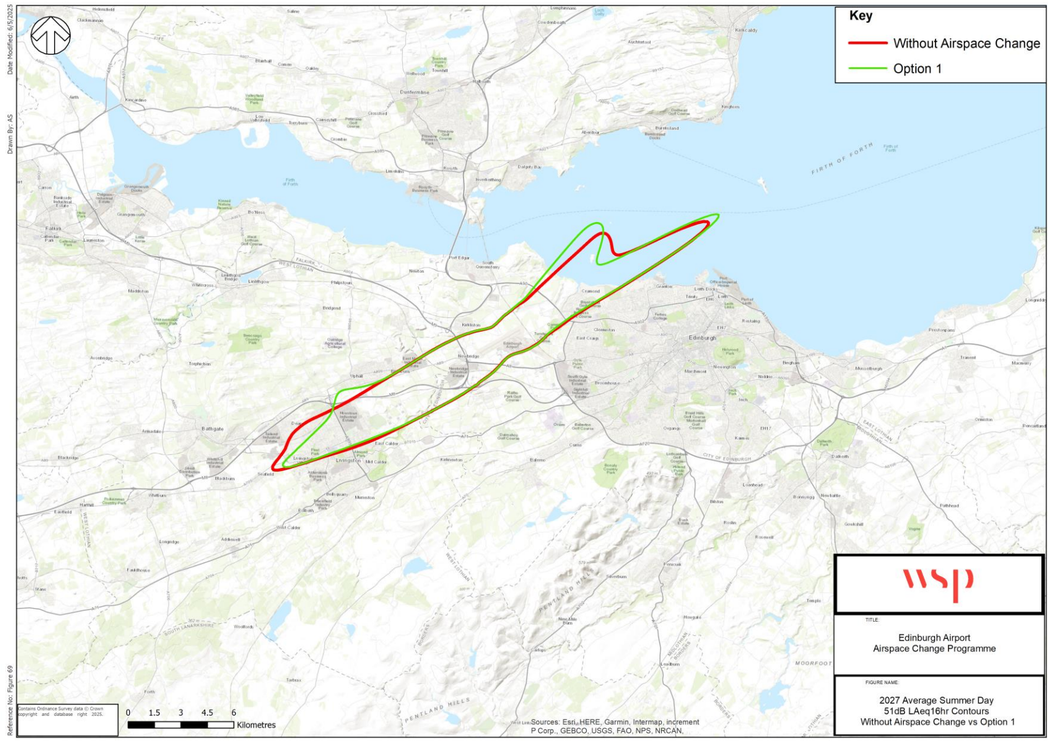


Figure 37: $L_{Aeq,\ 16\ Hr}$, Day-Time 51dB Comparison Option 1 vs Baseline, 2027

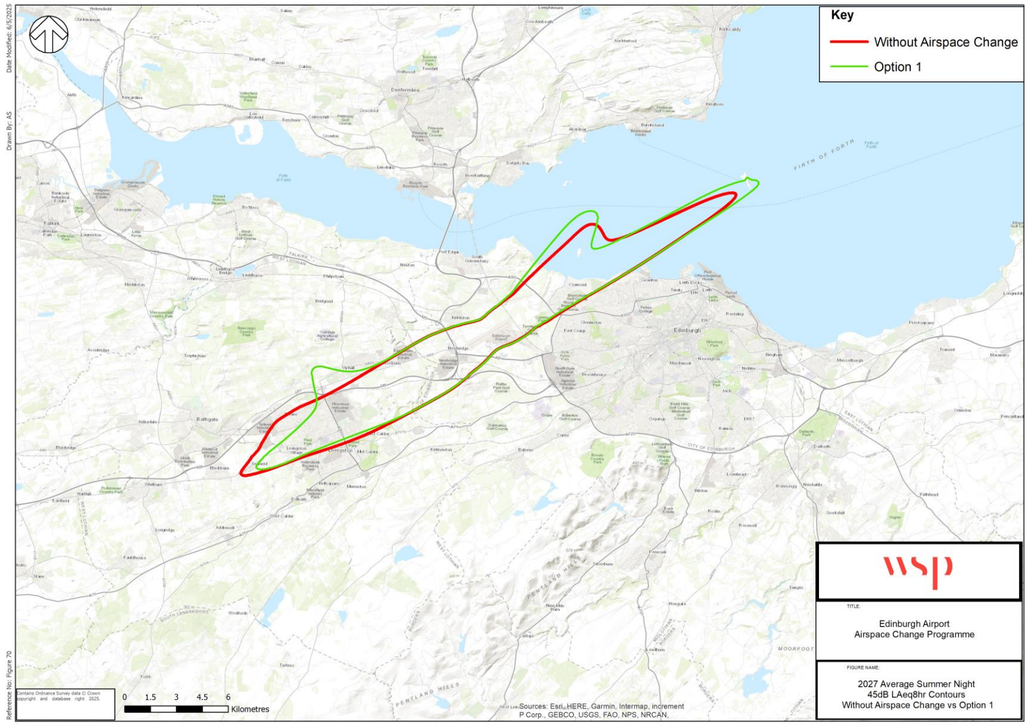


Figure 38: $L_{Aeq,\ 8\ Hr}$, Night-Time 45dB Comparison Option 1 vs Baseline, 2027

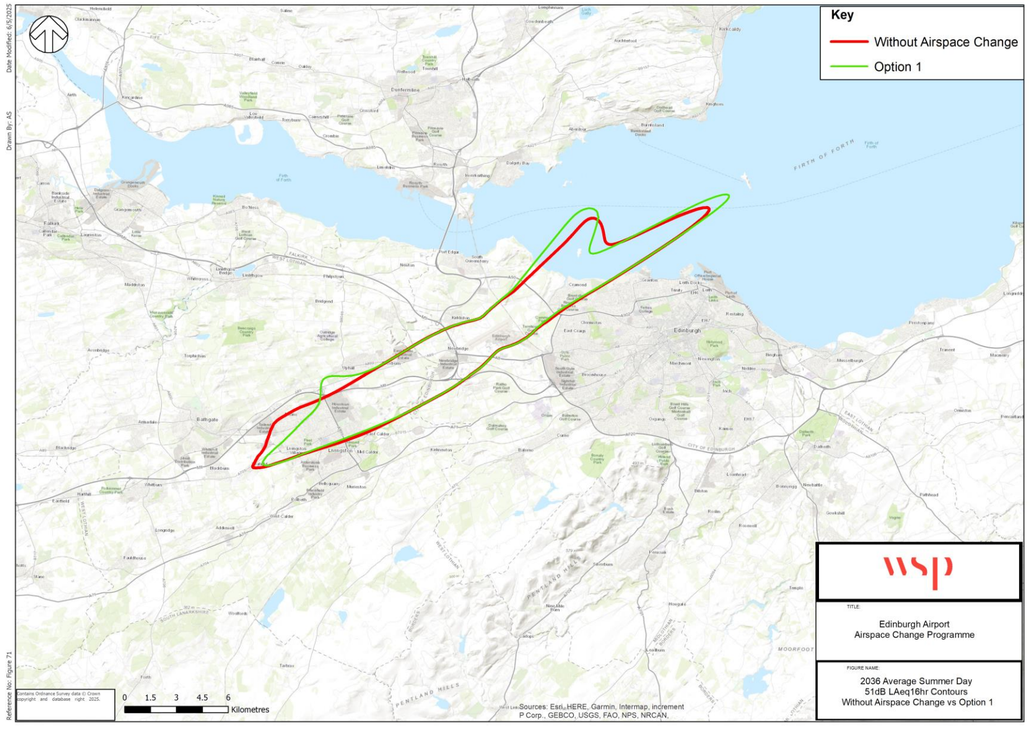


Figure 39: $L_{Aeq,\ 16\ Hr}$, Day-Time 51dB Comparison Option 1 vs Baseline, 2036

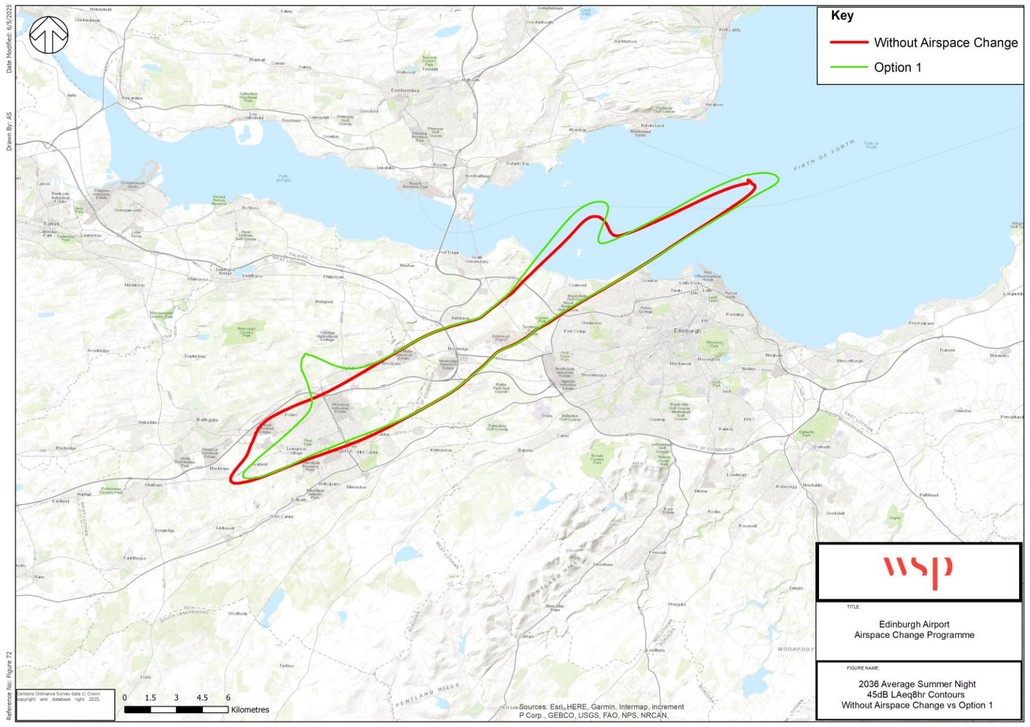


Figure 40: $L_{Aeq,\ 8\ Hr}$, Night-Time 45dB Comparison Option 1 vs Baseline, 2036

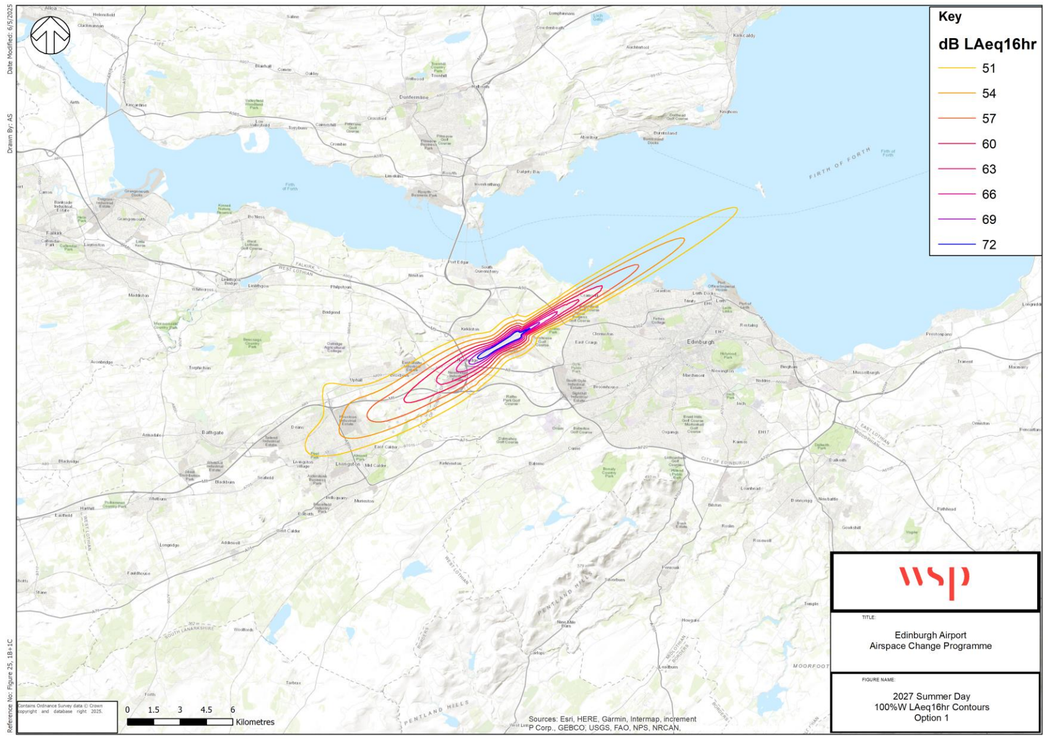


Figure 41: $L_{Aeq,\ 16\ Hr}$, Day-Time 100% West Option 1, 2027

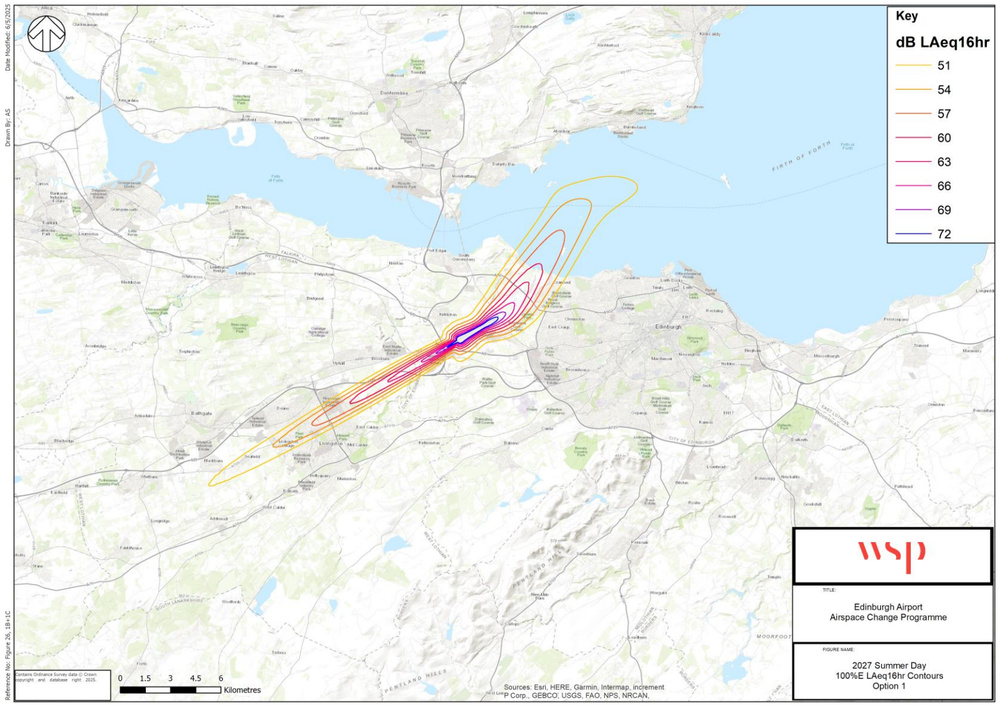


Figure 42: $L_{Aeq,\ 16\ Hr}$, Day-Time 100% East Option 1, 2027

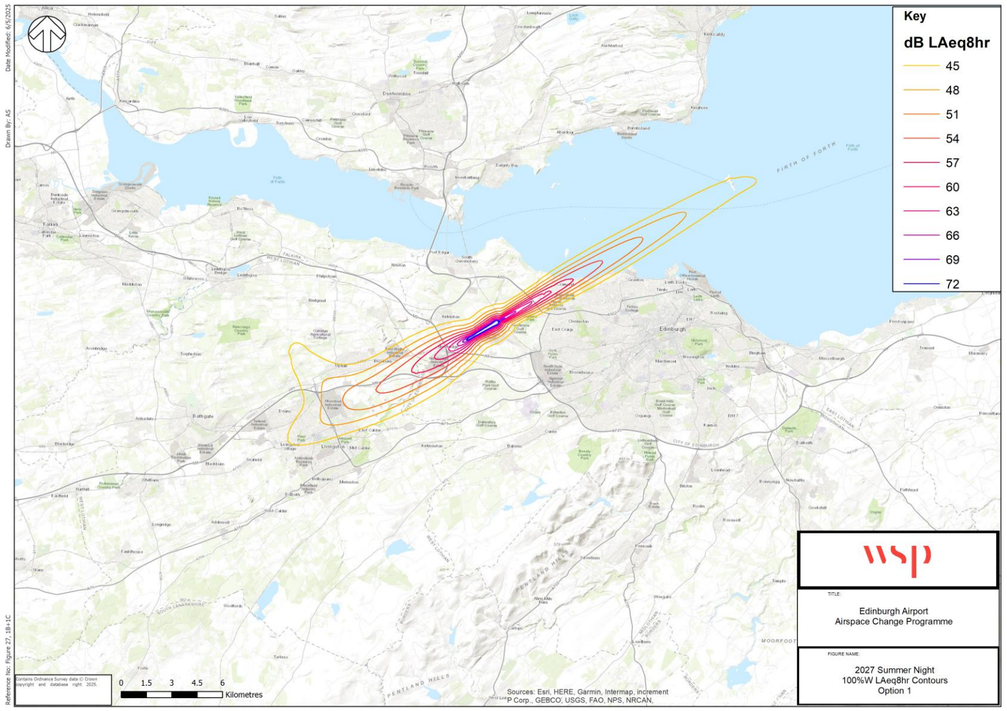


Figure 43: $L_{Aeq,\ 8\ Hr}$, Night-Time 100% West Option 1, 2027

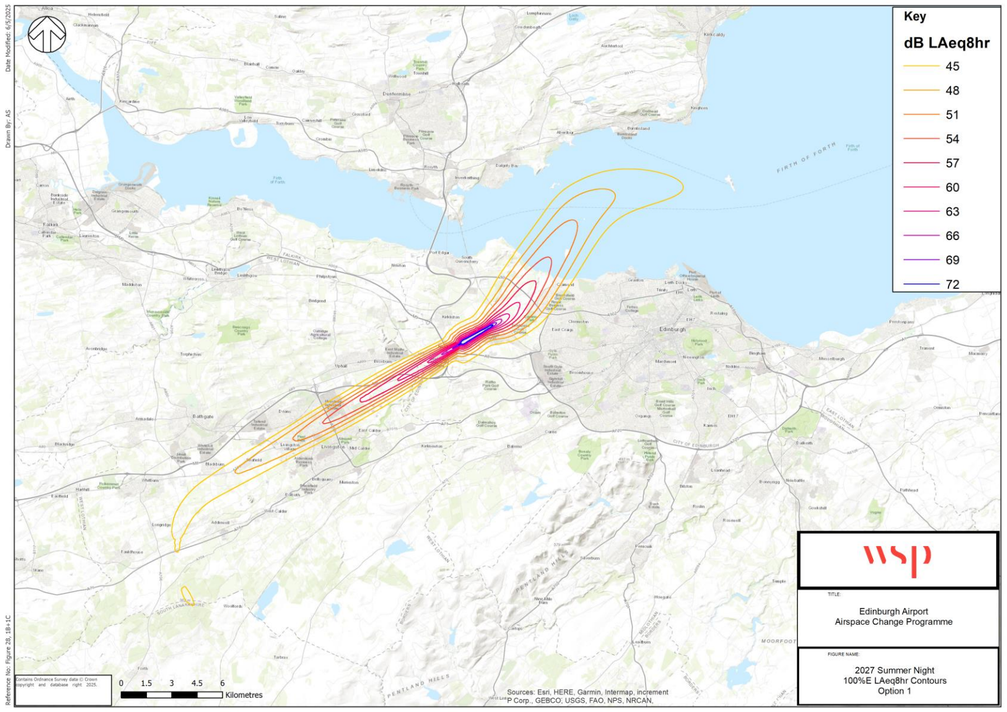


Figure 44: $L_{Aeq,\ 8\ Hr}$, Night-Time 100% East Option 1, 2027

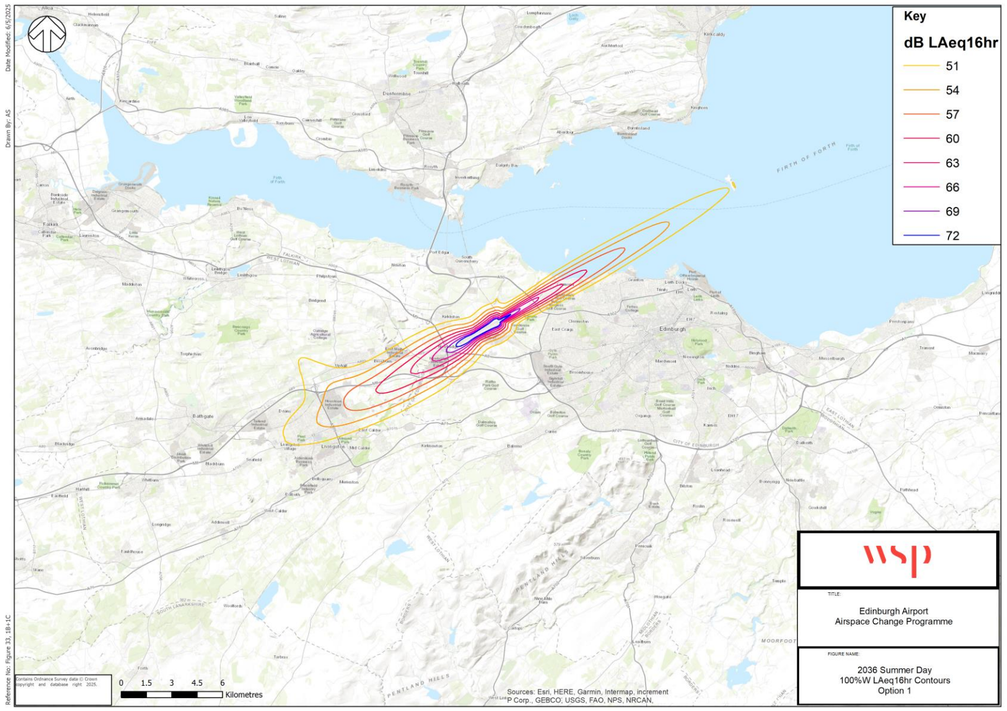


Figure 45: $L_{Aeq,\ 16\ Hr}$, Day-Time 100% West Option 1, 2036

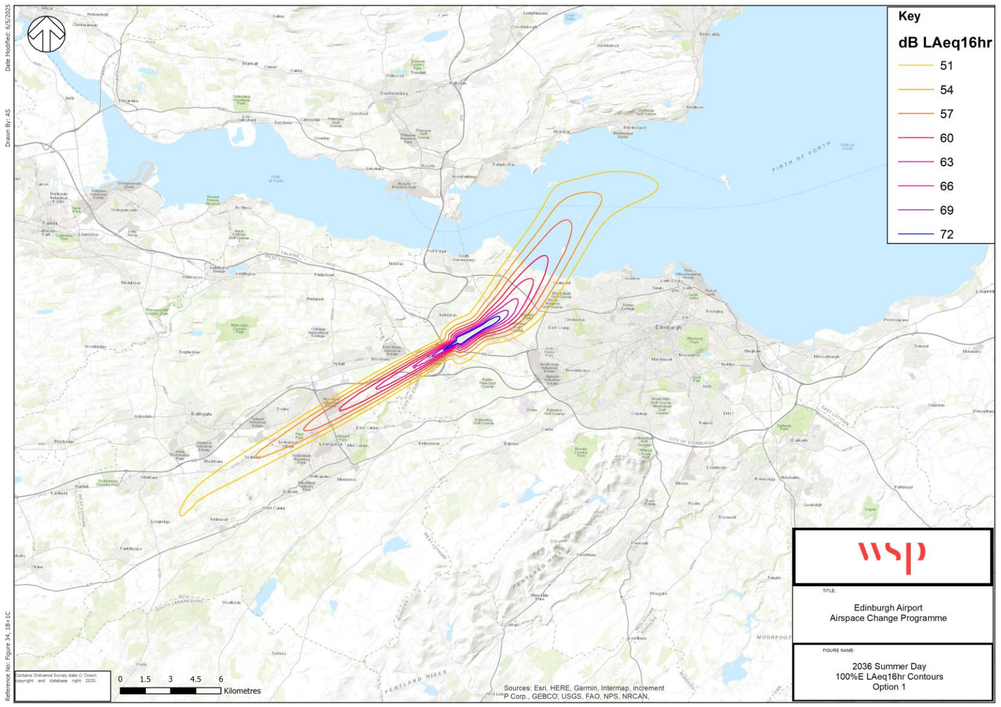
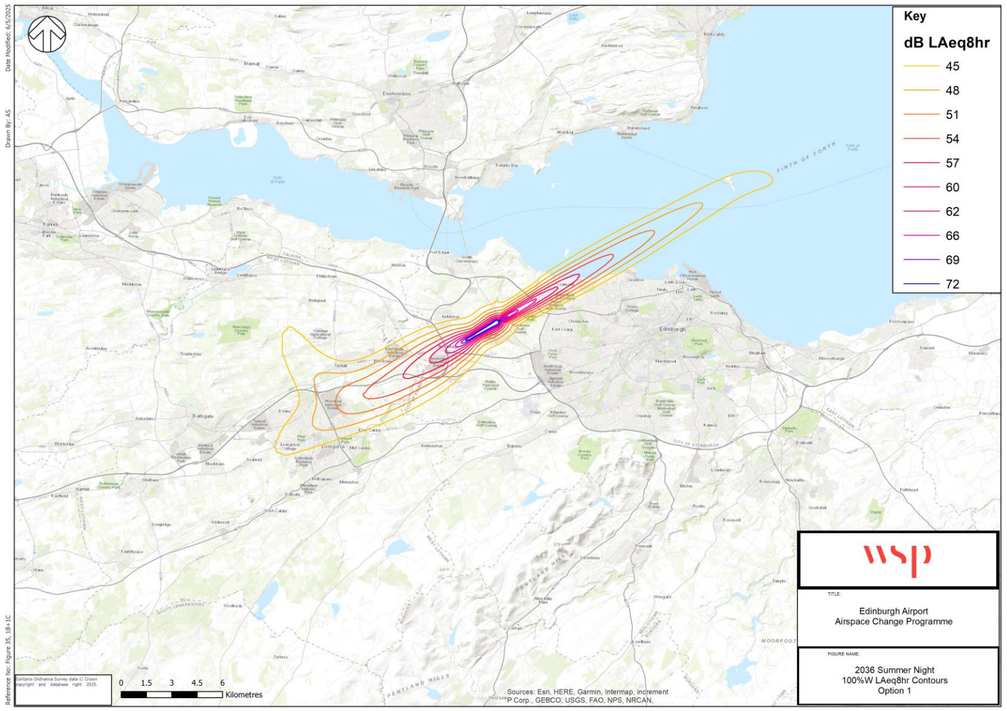


Figure 46: $L_{Aeq,\ 16\ Hr}$, Day-Time 100% East Option 1, 2036



Date Modified: 6/9/2025

Drawn By: AS

Reference No: Figure 35, 1B-1-C

Figure 47: $L_{Aeq,\ 8\ Hr}$, Night-Time 100% West Option 1, 2036

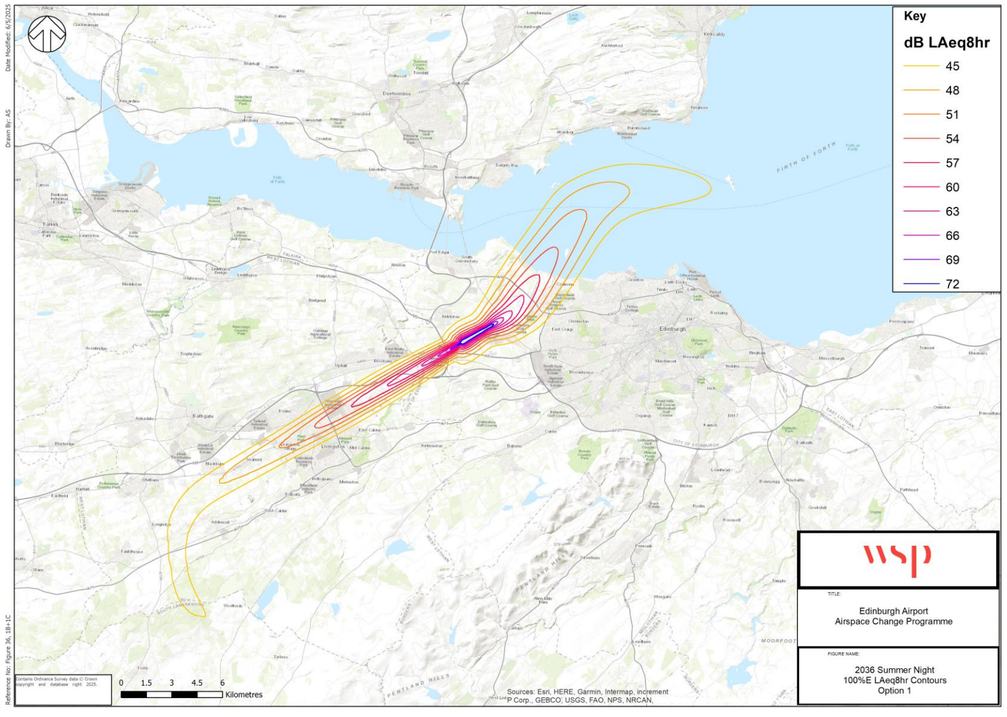


Figure 48: $L_{Aeq,\ 8\ Hr}$, Night-Time 100% East Option 1, 2036

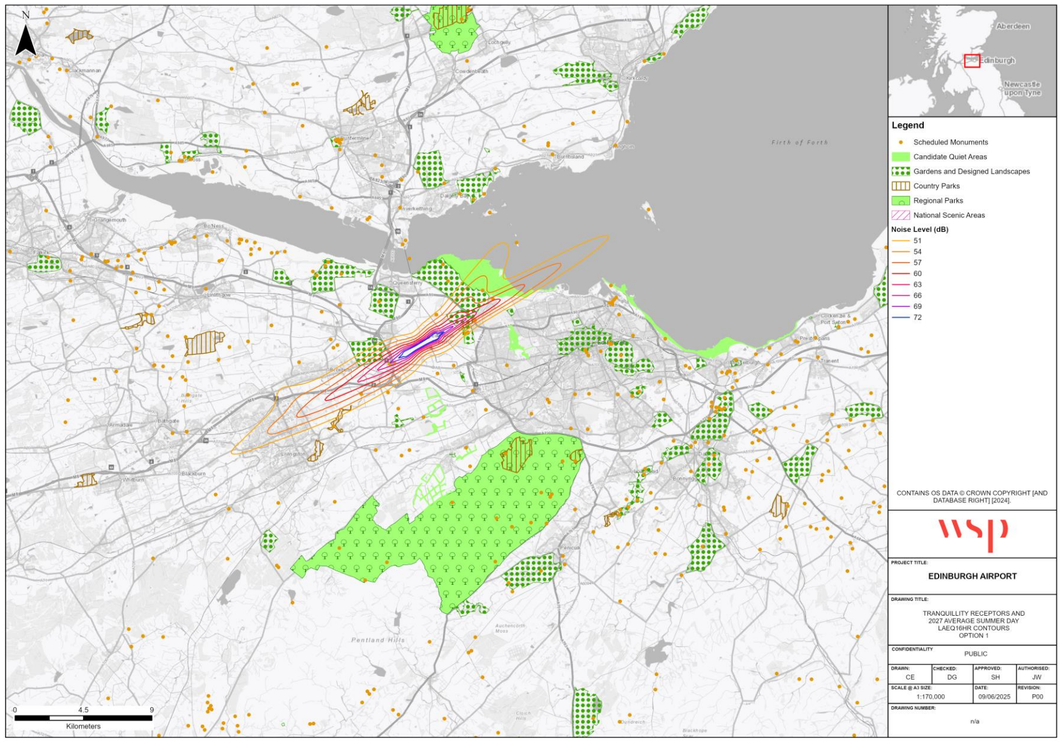


Figure 49: Tranquillity Receptors $L_{Aeq,\ 16\ Hr}$, Day-Time Option 1, 2027

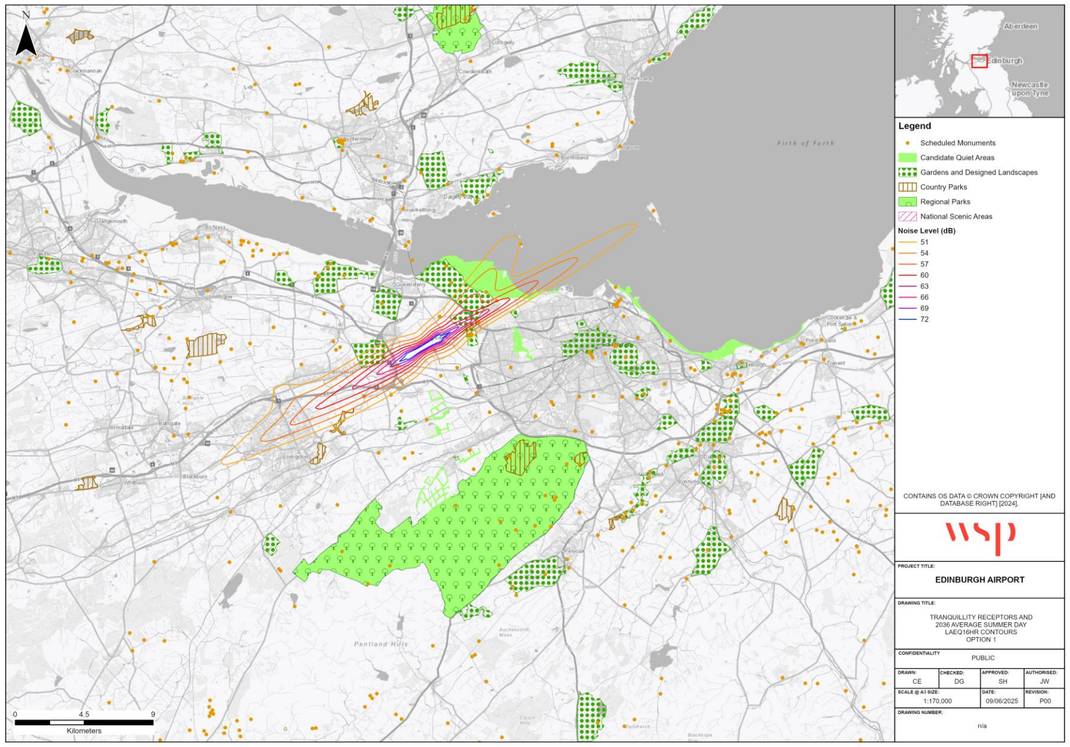


Figure 50: Tranquillity Receptors $L_{Aeq,\ 16\ Hr}$, Day-Time Option 1, 2036

3.2 Nx Contours for Option 1

Nx contours for Option 1 are provided below.

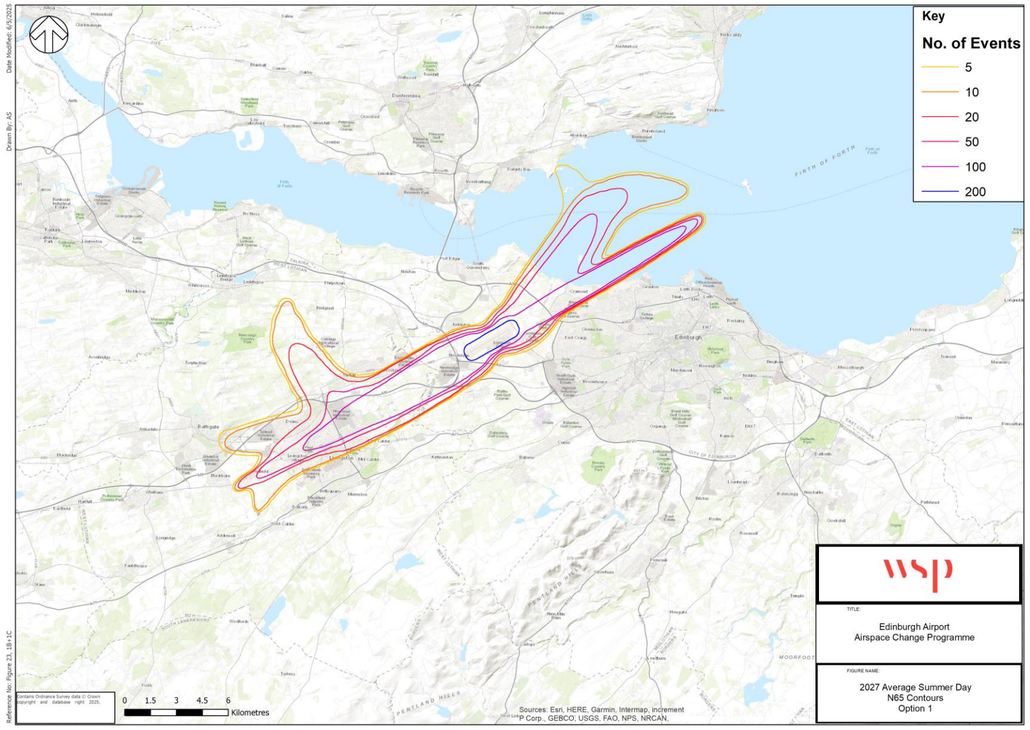


Figure 51: N65, Daytime Option 1, 2027

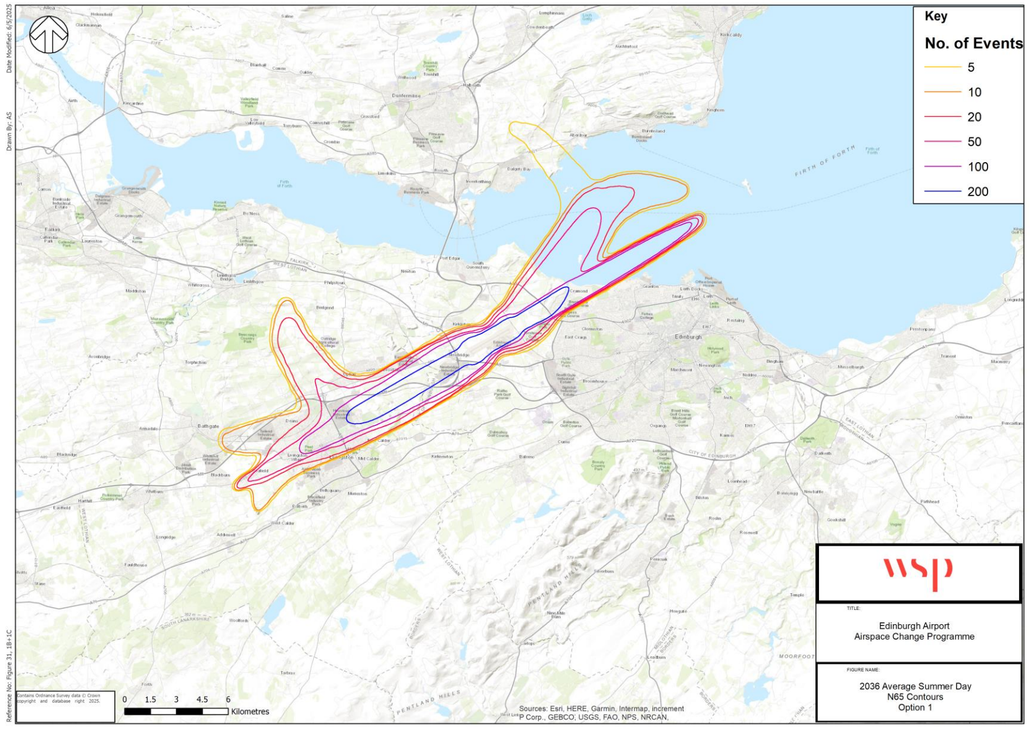


Figure 52: N65, Daytime Option 1, 2036

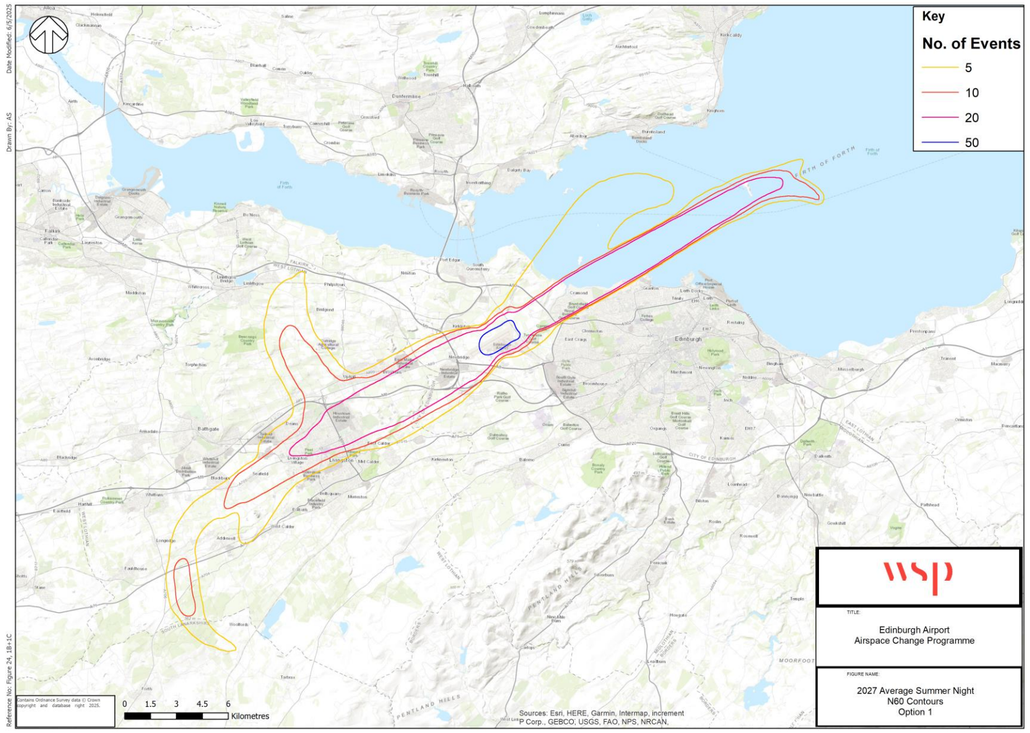


Figure 53: N60, Night-Time Option 1, 2027

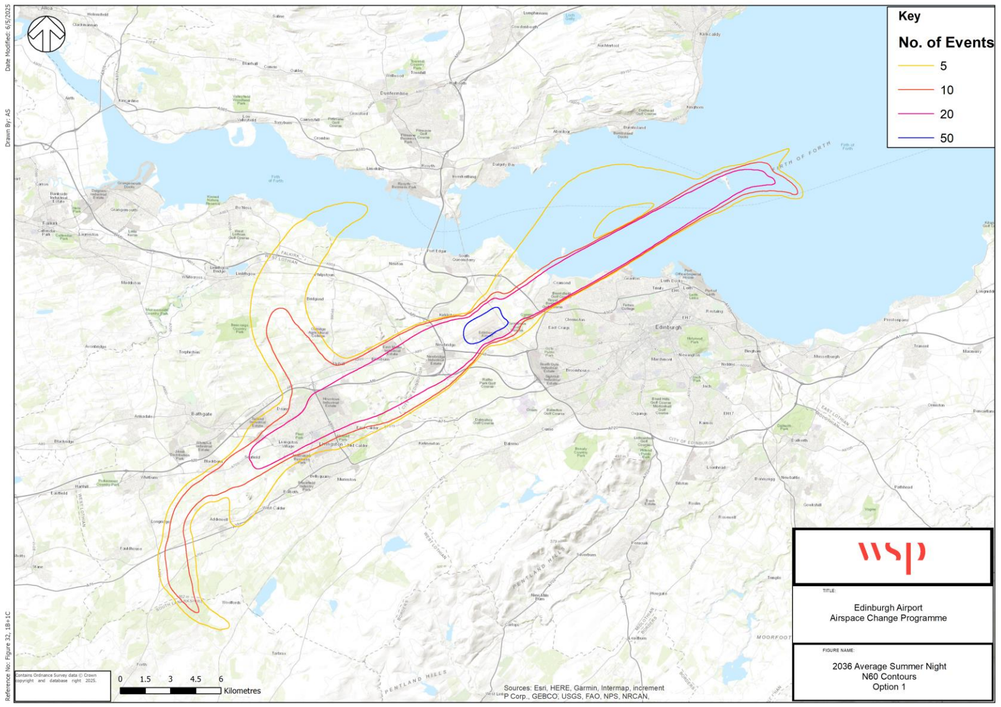


Figure 54: N60, Night-Time Option 1, 2036

3.4 Overflight Contours for Option 1

2. Overflight contours for Option 1 are provided below.

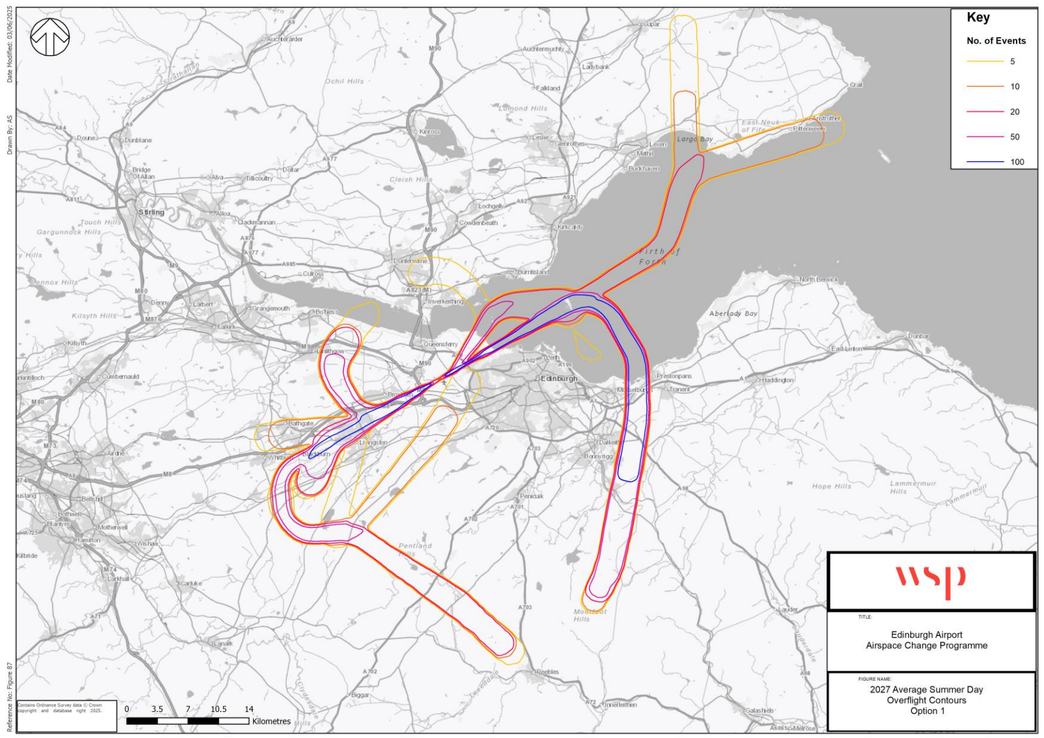


Figure 55: Overflight, Daytime Option 1, 2027

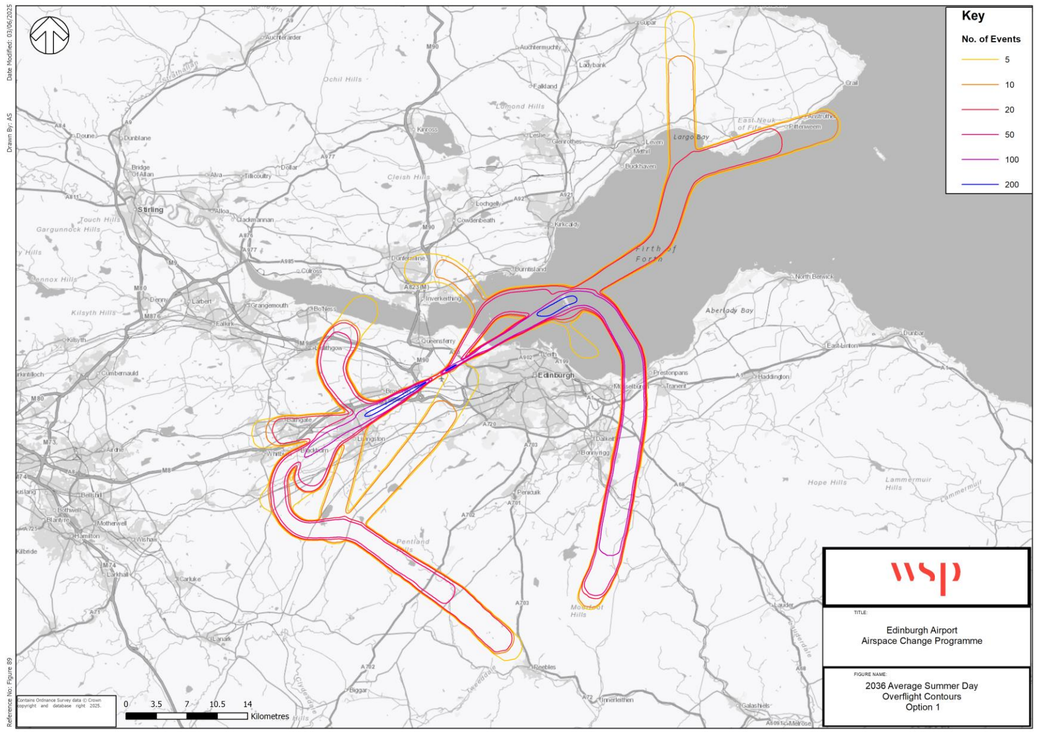


Figure 56: Overflight, Daytime Option 1, 2036

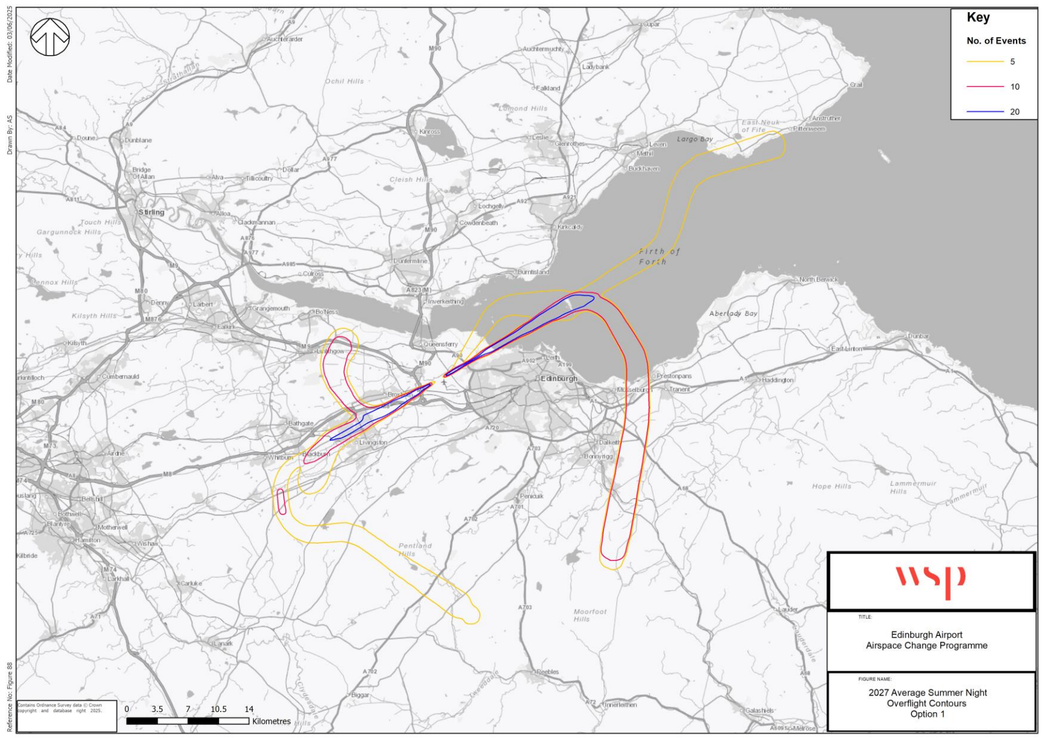


Figure 57: Overflight, Night-Time Option 1, 2027

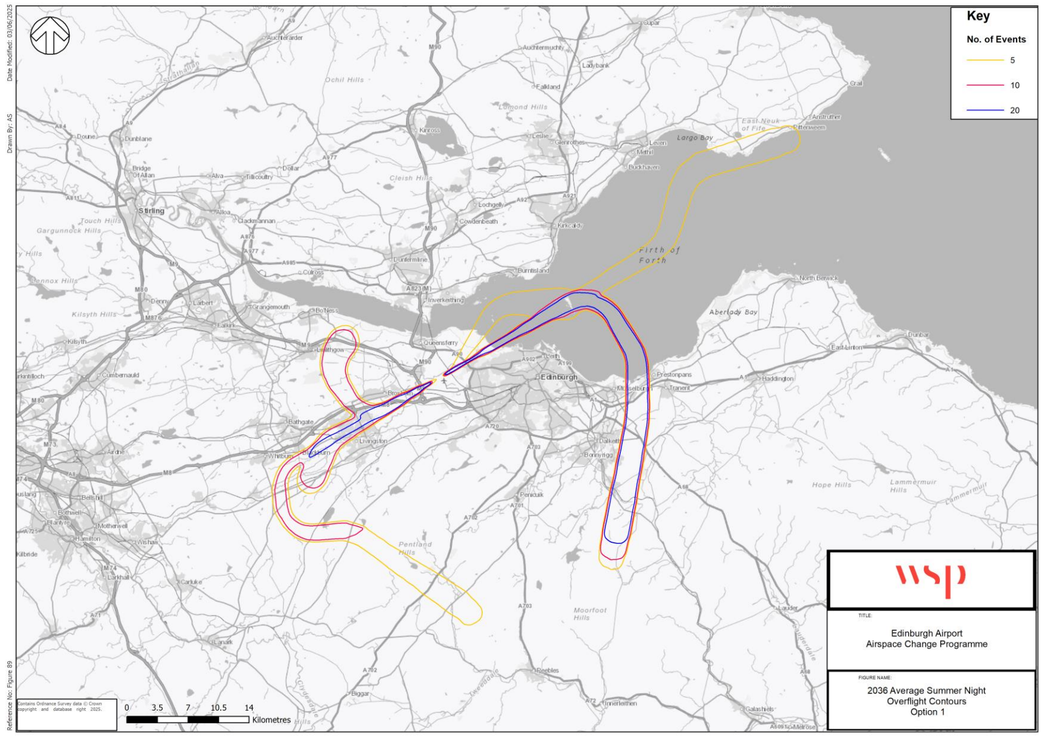


Figure 58: Overflight, Night-Time Option 1, 2036

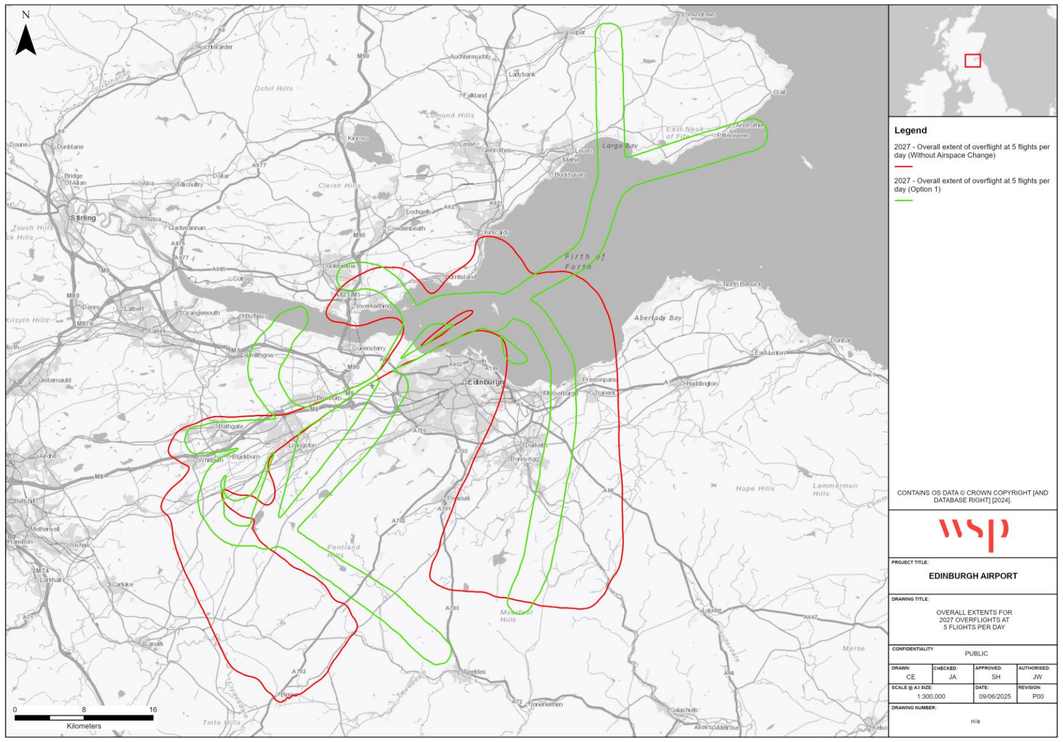


Figure 59:Overflight, Daytime 5 per day Comparison Option 1 vs Baseline, 2027

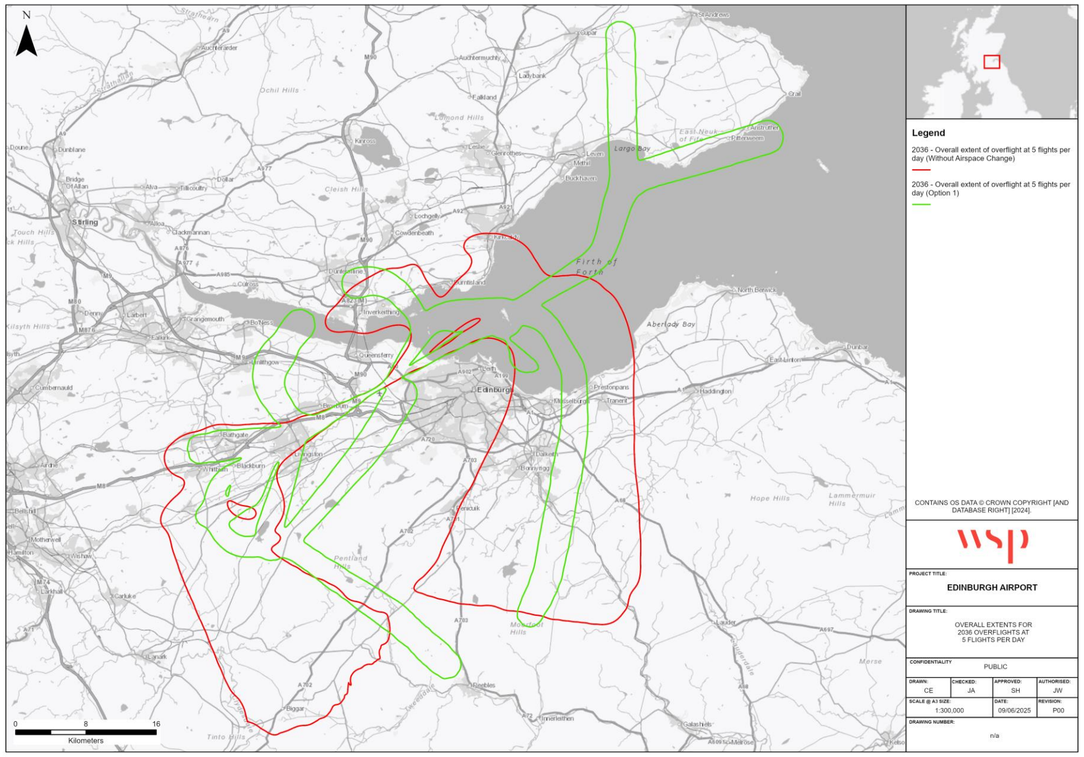


Figure 60:Overflight, Daytime 5 per day Comparison Option 1 vs Baseline, 2036

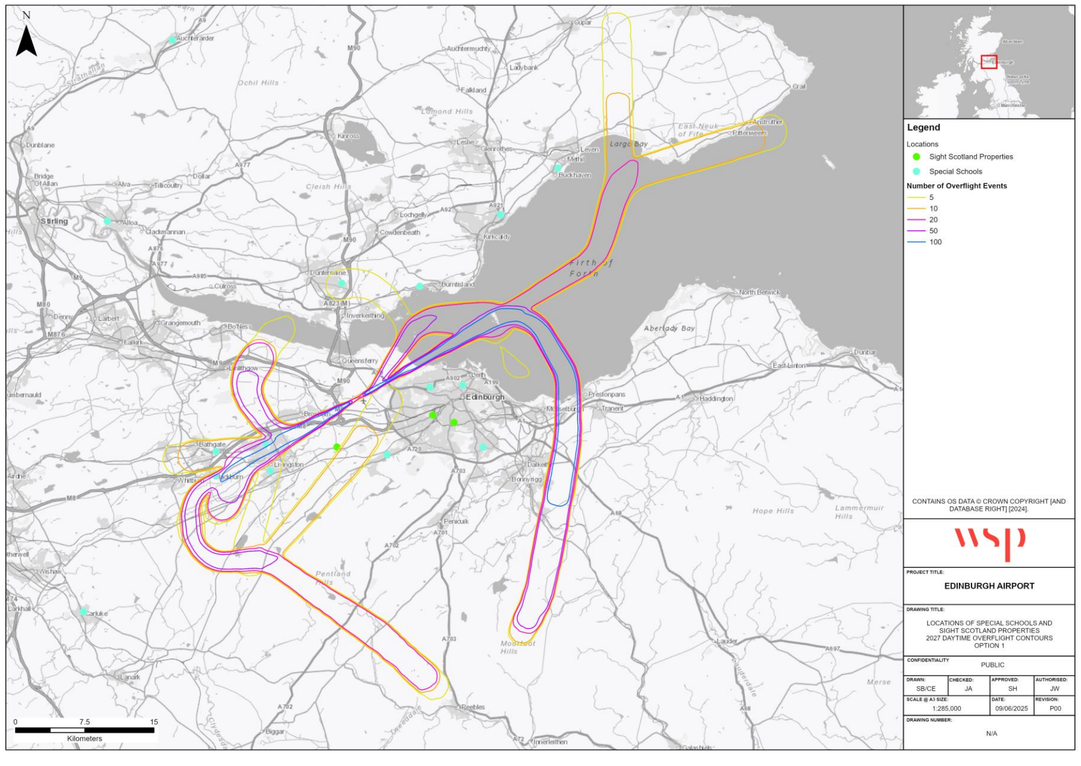


Figure 61: Special Schools and Sight Scotland Sites Overflight, Daytime Option 1, 2027

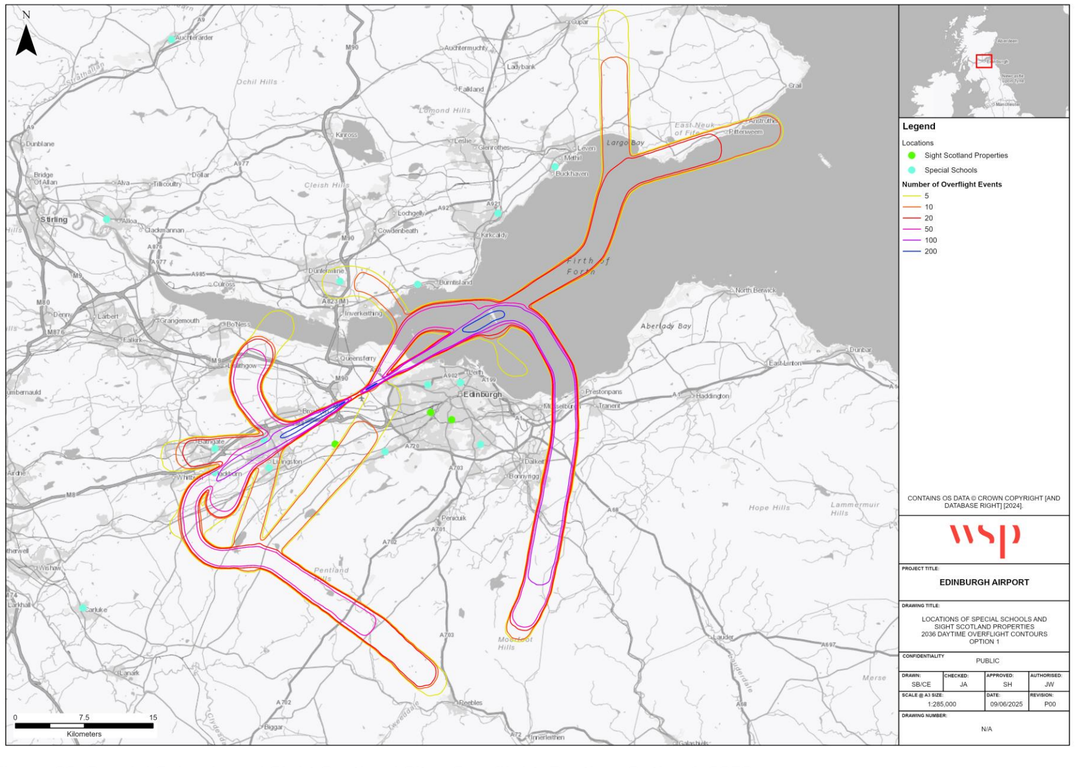


Figure 62: Special Schools and Sight Scotland Sites Overflight, Daytime Option 1, 2036

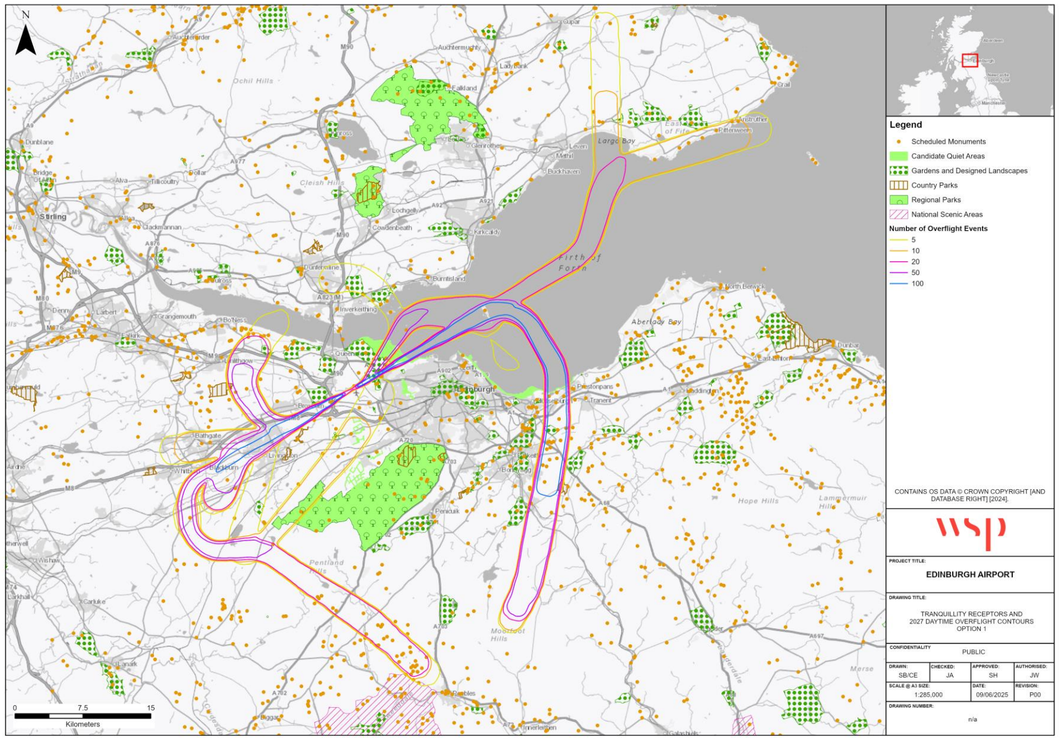


Figure 63: Tranquillity Receptors Overflight, Daytime Option 1, 2027

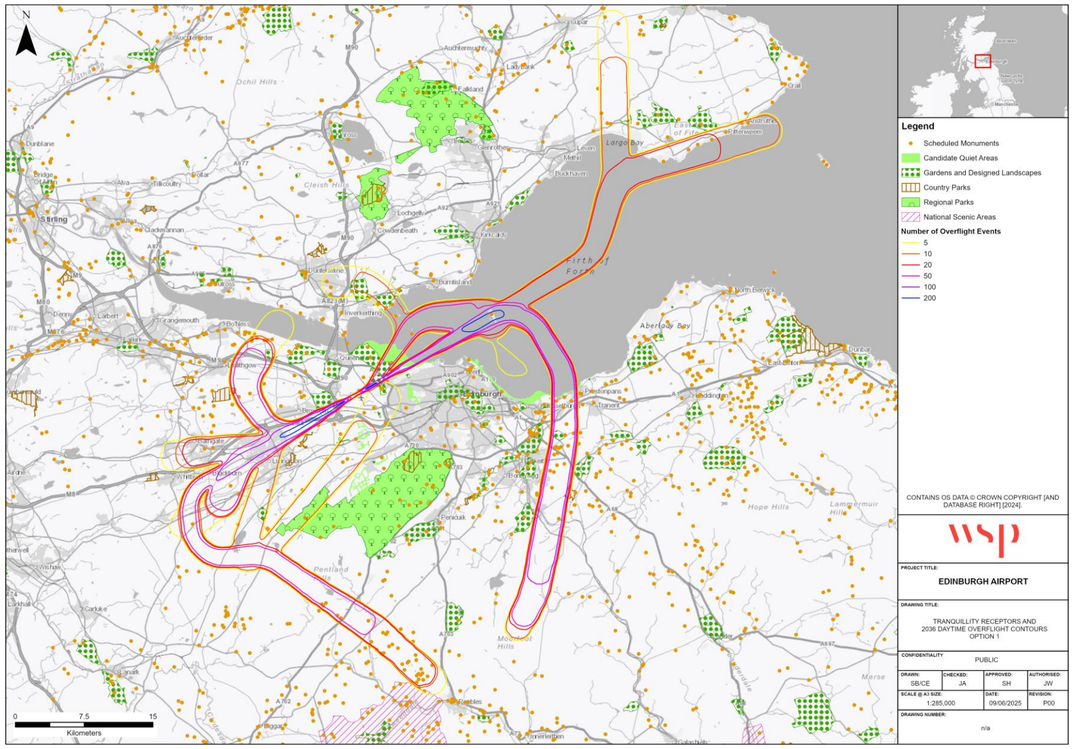


Figure 64: Tranquillity Receptors Overflight, Daytime Option 1, 2036

3.5 Population and Noise Sensitive Sites in relation to L_{Aeq} 100% modes, Nx and Overflight contours for Option 1

Tables showing population and noise sensitive sites in relation to L_{aeq} 100% modes Nx and Overflight contours for Option 1 are provided below. Tables for $L_{Aeq,\ 16hr}$, $L_{Aeq,\ 8hr}$ can be found in Section 4 of the FOA.

Table 33: LAeq, 16 Hr, Day-Time 100% West Option 1, 2027

Year	Scenario	Metric	Contour (dB)	Area (km²)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2027	Option 1	100% west $L_{Aeq,16hr}$	51	60.3	54,400	24,700	5	1	2	10	176
			54	36.1	11,400	5,300	3	0	1	2	129
			57	20.9	4,500	2,200	1	0	0	2	70
			60	11.2	2,900	1,400	1	0	0	1	37
			63	5.9	1,000	500	0	0	0	0	10
			66	3.0	200	100	0	0	0	0	1
			69	1.6	<100	<100	0	0	0	0	0

Table 34: LAeq, 16 Hr, Day-Time 100% West Option 1, 2036

Year	Scenario	Metric	Contour (dB)	Area (km²)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2036	Option 1	100% west $L_{Aeq,16hr}$	51	70.6	65,400	29,600	7	1	3	13	187
			54	41.9	30,300	13,800	3	0	1	5	141
			57	24.7	5,900	2,800	1	0	0	2	82
			60	13.5	3,200	1,600	1	0	0	1	47
			63	7.1	1,800	900	1	0	0	1	16
			66	3.6	400	200	0	0	0	0	3
			69	1.9	100	<100	0	0	0	0	0

Table 35: LAeq, 16 Hr, Day-Time 100% East Option 1, 2027

Year	Scenario	Metric	Contour (dB)	Area (km²)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2027	Option 1	100% east $L_{Aeq,16hr}$	51	63.2	28,500	13,000	7	1	2	8	145
			54	37.2	15,900	7,300	5	1	2	3	99
			57	21.6	4,400	2,000	0	0	0	2	37
			60	11.7	800	400	0	0	0	0	26
			63	6.2	400	200	0	0	0	0	15
			66	3.0	100	<100	0	0	0	0	2
			69	1.6	<100	<100	0	0	0	0	0

Table 36: LAeq, 16 Hr, Day-Time 100% East Option 1, 2036

Year	Scenario	Metric	Contour (dB)	Area (km²)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2036	Option 1	100% east $L_{Aeq,16hr}$	51	74.6	30,700	14,000	7	1	4	9	169
			54	43.3	18,500	8,500	5	1	2	4	116
			57	25.4	6,800	3,100	0	0	0	3	45
			60	14.0	1,400	600	0	0	0	0	31
			63	7.5	500	200	0	0	0	0	19
			66	3.6	100	100	0	0	0	0	11
			69	1.9	100	<100	0	0	0	0	0

Table 37: LAeq, 8 Hr, Night-Time 100% West Option 1, 2027

Year	Scenario	Metric	Contour (dB)	Area (km²)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2027	Option 1	100% west $L_{Aeq,8hr}$	45	77.7	64,300	29,100	7	1	3	13	202
			48	45.3	29,800	13,600	3	0	1	3	141
			51	26.9	6,100	2,900	1	0	0	2	101
			54	14.6	3,400	1,700	1	0	0	1	57
			57	7.5	2,600	1,300	1	0	0	1	27
			60	3.7	600	300	0	0	0	0	4
			63	1.9	<100	<100	0	0	0	0	0
			66	1.0	0	0	0	0	0	0	0

Table 38: LAeq, 8 Hr, Night-Time 100% West Option 1, 2036

Year	Scenario	Metric	Contour (dB)	Area (km²)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2036	Option 1	100% west $L_{Aeq,8hr}$	45	90.6	81,200	36,800	10	1	6	18	235
			48	52.4	37,300	17,000	3	0	1	5	152
			51	31.3	9,500	4,500	1	0	0	2	112
			54	17.6	3,700	1,800	1	0	0	2	65
			57	9.1	2,800	1,400	1	0	0	1	35
			60	4.6	1,300	600	0	0	0	1	10
			63	2.3	100	<100	0	0	0	0	0
			66	1.1	0	0	0	0	0	0	0

Table 39: LAeq, 8 Hr, Night-Time 100% East Option 1, 2027

Year	Scenario	Metric	Contour (dB)	Area (km²)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2027	Option 1	100% east $L_{Aeq,8hr}$	45	84.2	36,900	16,800	7	1	5	10	181
			48	47.7	22,400	10,200	5	1	2	6	115
			51	27.6	11,200	5,000	3	1	1	3	50
			54	15.4	2,800	1,300	0	0	0	1	32
			57	8.3	500	300	0	0	0	0	18
			60	3.9	200	100	0	0	0	0	9
			63	1.9	100	<100	0	0	0	0	0
			66	1.0	<100	<100	0	0	0	0	0

Table 40: LAeq, 8 Hr, Night-Time 100% East Option 1, 2036

Year	Scenario	Metric	Contour (dB)	Area (km²)	Total population	Households	No. of care homes	No. of hospitals	No. of places of worship	No. of schools	No. of Listed Buildings
2036	Option 1	100% east $L_{Aeq,8hr}$	45	101.5	47,300	21,600	7	1	5	12	189
			48	55.5	26,800	12,200	7	1	2	7	127
			51	32.4	14,300	6,500	5	1	2	3	70
			54	18.2	4,300	2,000	0	0	0	2	34
			57	9.9	700	300	0	0	0	0	21
			60	4.9	300	200	0	0	0	0	15
			63	2.3	100	<100	0	0	0	0	1
			66	1.2	<100	<100	0	0	0	0	0

Table 41: N65, Daytime Option 1, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Area (km2)	Total population	Total households	Number of carehomes	Number of hospitals	Number of listed buildings	Number of places of worship	Number of schools
2027	Option 1	N65 (day)	5	132.6	94,400	42,700	8	1	270	8	24
			10	118.9	88,600	40,100	8	1	252	8	20
			20	87.5	68,000	30,800	7	1	204	2	15
			50	58.8	43,700	19,800	6	1	154	2	9
			100	36.4	18,900	8,700	5	1	127	2	5
			200	3.3	100	<100	0	0	0	0	0

Table 42: N65, Daytime Option 1, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Area (km2)	Total population	Total households	Number of carehomes	Number of hospitals	Number of listed buildings	Number of places of worship	Number of schools
2036	Option 1	N65 (day)	5	141.9	95,700	43,300	8	1	285	8	24
			10	122.5	91,200	41,200	8	1	255	8	23
			20	95.6	71,400	32,300	7	1	231	4	16
			50	64.9	47,700	21,600	6	1	156	2	10
			100	39.6	22,100	10,100	6	1	129	2	5
			200	16.7	4,200	2,000	0	0	51	0	0

Table 43: N60, Night-Time Option 1, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Area (km2)	Total population	Total households	Number of carehomes	Number of hospitals	Number of listed buildings	Number of places of worship	Number of schools
2027	Option 1	N60 (night)	5	177.4	110,000	49,700	11	1	315	11	23
			10	101.4	77,300	35,000	8	1	233	4	17
			20	62.1	44,800	20,300	6	1	161	2	8
			50	2.8	<100	<100	0	0	1	0	0

Table 44: N60, Night-Time Option 1, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Area (km2)	Total population	Total households	Number of carehomes	Number of hospitals	Number of listed buildings	Number of places of worship	Number of schools
2036	Option 1	N60 (night)	5	210.5	117,800	53,200	11	1	355	12	25
			10	118.8	97,000	43,800	10	1	252	6	20
			20	73.3	55,400	25,200	7	1	203	3	10
			50	3.3	100	<100	0	0	6	0	0

Table 45: Overflight Daytime, Option 1, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Area (km2)	Total population	Total households	Number of carehomes	Number of hospitals	Number of listed buildings	Number of places of worship	Number of schools
2027	Option 1	Overflights Day	5	779.1	285,300	130,400	22	4	1638	23	66
			10	548.6	150,800	68,200	15	2	1189	16	42
			20	385.0	102,300	46,100	12	1	303	11	24
			50	193.0	77,000	34,700	10	1	196	7	13
			100	74.1	31,800	14,400	6	1	64	1	5

Table 46: Overflight Daytime, Option 1, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Area (km2)	Total population	Total households	Number of carehomes	Number of hospitals	Number of listed buildings	Number of places of worship	Number of schools
2036	Option 1	Overflights Day	5	797.4	293,000	134,000	23	4	1651	23	66
			10	633.3	174,300	78,900	18	2	1333	20	49
			20	439.8	134,500	60,600	14	1	655	16	34
			50	270.0	86,100	38,800	11	1	256	8	16
			100	107.2	40,200	18,200	9	1	104	2	7
			200	7.0	1,000	400	0	0	6	0	0

Table 47: Overflight Night-Time, Option 1, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Area (km2)	Total population	Total households	Number of carehomes	Number of hospitals	Number of listed buildings	Number of places of worship	Number of schools
2027	Option 1	Overflights Night	5	372.0	100,400	45,300	13	1	627	8	21
			10	148.2	64,600	29,100	10	1	183	3	12
			20	23.5	10,100	4,500	3	0	10	1	3

Table 48: Overflight Night-Time, Option 1, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Area (km2)	Total population	Total households	Number of carehomes	Number of hospitals	Number of listed buildings	Number of places of worship	Number of schools
2036	Option 1	Overflights Night	5	393.6	105,000	47,500	13	1	826	8	24
			10	191.0	80,700	36,300	11	1	219	8	16
			20	99.6	38,300	17,300	7	1	103	1	7

3.6 Tranquillity Sites in relation to $L_{Aeq,\ 8\ Hr}$, Nx and Overflight contours for Option 1

3. Tables showing tranquillity sites in relation to $L_{Aeq\ 8Hr}$, Nx and Night Time Overflight contours for Option 1 are provided below. $L_{Aeq\ 16Hr}$ and Daytime Overflight Comparison tables can be found in the main report along with $L_{Aeq\ 16Hr}$ absolute data

Table 49: Tranquillity Sites in Relation to $L_{Aeq,\ 8\ Hr}$, Night-Time, Option 1 vs Baseline, Comparison Table for 2027

Year	Scenario	Metric	Contour (dB)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	Comparison L_{Aeq8hr}	45	0	-0.1	0	1.1	0	0.4	0	0.0	0	0.0	2	0.2
			48	0	0.0	0	0.2	0	0.4	0	0.0	0	0.0	0	0.0
			51	0	0.0	0	-0.1	0	0.1	0	0.0	0	0.0	0	0.0
			54	0	0.0	-1	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			57	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 50: Tranquillity Sites in Relation to $L_{Aeq,\ 8\ Hr}$, Night-Time, Option 1 vs Baseline, Comparison Table for 2036

Year	Scenario	Metric	Contour (dB)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	Comparison L_{Aeq8hr}	45	0	0.0	0	1.1	0	0.4	0	0.0	0	0.0	-1	0.2
			48	0	0.0	0	0.7	0	0.4	0	0.0	0	0.0	-2	-0.1
			51	0	0.0	0	-0.2	0	0.3	0	0.0	0	0.0	-1	0.0
			54	0	0.0	0	-0.1	0	0.0	0	0.0	0	0.0	0	0.0
			57	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 51: Tranquillity Sites in Relation to $L_{Aeq,\ 8\ Hr}$, Night-Time, Option 1, 2027

Year	Scenario	Metric	Contour (dB)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	L_{Aeq8hr}	45	1	0.2	2	5.3	5	6.8	0	0.0	0	0.0	14	0.5
			48	1	0.0	2	3.0	4	5.3	0	0.0	0	0.0	8	0.2
			51	0	0.0	2	0.9	4	3.4	0	0.0	0	0.0	6	0.2
			54	0	0.0	1	0.4	3	1.7	0	0.0	0	0.0	5	0.1
			57	0	0.0	0	0.0	3	0.8	0	0.0	0	0.0	5	0.0
			60	0	0.0	0	0.0	2	0.4	0	0.0	0	0.0	3	0.0
			63	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	2	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 52: Tranquillity Sites in Relation to $L_{Aeq,\ 8\ Hr}$, Night-Time, Option 1, 2036

Year	Scenario	Metric	Contour (dB)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	L_{Aeq8hr}	45	1	0.3	2	5.6	5	7.3	0	0.0	0	0.0	14	0.6
			48	1	0.1	2	4.1	4	5.7	0	0.0	0	0.0	8	0.2
			51	0	0.0	2	1.0	4	4.1	0	0.0	0	0.0	6	0.2
			54	0	0.0	2	0.5	3	2.0	0	0.0	0	0.0	5	0.1
			57	0	0.0	0	0.0	3	1.0	0	0.0	0	0.0	5	0.1
			60	0	0.0	0	0.0	2	0.5	0	0.0	0	0.0	3	0.0
			63	0	0.0	0	0.0	1	0.2	0	0.0	0	0.0	2	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0

Table 53: Tranquillity Sites in Relation to N65, Daytime, Option 1 vs Baseline, Comparison Table for 2027

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	Comparison N65 (day)	5	0	0.0	0	0.5	0	-1.6	0	0.0	0	0.0	0	0.1
			10	0	0.0	0	0.7	0	0.5	0	0.0	0	0.0	2	0.1
			20	0	0.0	0	0.8	0	0.3	0	0.0	0	0.0	0	0.0
			50	0	-0.1	0	0.7	0	0.4	0	0.0	0	0.0	-1	-0.1
			100	0	0.0	0	-0.1	0	0.0	0	0.0	0	0.0	0	0.0
			200	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 54: Tranquillity Sites in Relation to N65, Daytime, Option 1 vs Baseline, Comparison Table for 2036

Year	Scenario	Metric	Contour (Flights per Day)	Area (km2)	Total population	Total households	Number of carehomes	Number of hospitals	Number of listed buildings	Number of places of worship	Number of schools
2036	Option 1	Comparison N65 (day)	5	12.2	- 3,100	- 1,500	1	0	-21	1	1
			10	15.1	6,200	2,700	1	0	19	1	1
			20	5.6	- 5,000	- 2,300	0	0	9	-3	-6
			50	0.6	- 10,400	- 4,700	0	0	-8	-2	-6
			100	-1.6	- 4,200	- 1,900	0	0	-3	0	-2
			200	-2.5	- 4,100	- 1,900	-2	0	-26	-1	-3

Table 55: Tranquillity Sites in Relation to N65, Daytime, Option 1, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	N65 (day)	5	1	0.3	2	6.2	5	8.2	0	0.0	0	0.0	19	0.6
			10	1	0.3	2	6.1	4	7.7	0	0.0	0	0.0	17	0.4
			20	1	0.3	2	5.7	4	7.0	0	0.0	0	0.0	12	0.3
			50	1	0.0	2	4.6	4	5.9	0	0.0	0	0.0	10	0.2
			100	1	0.0	2	1.1	4	3.0	0	0.0	0	0.0	6	0.2
			200	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0

Table 56: Tranquillity Sites in Relation to N65, Daytime, Option 1, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	N65 (day)	5	1	0.3	2	6.3	6	10.4	0	0.0	0	0.0	20	0.7
			10	1	0.3	2	6.2	4	7.8	0	0.0	0	0.0	17	0.4
			20	1	0.3	2	5.9	4	7.2	0	0.0	0	0.0	14	0.3
			50	1	0.1	2	5.0	4	6.3	0	0.0	0	0.0	12	0.3
			100	1	0.0	2	1.2	4	3.3	0	0.0	0	0.0	6	0.2
			200	0	0.0	1	0.0	4	1.7	0	0.0	0	0.0	4	0.1

Table 57: Tranquillity Sites in Relation to N60, Night-Time, Option 1 vs Baseline, Comparison Table for 2027

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	Comparison N60 (night)	5	0	0.0	0	-0.7	0	-0.3	0	0.0	0	0.0	1	-0.2
			10	0	0.0	0	0.0	0	-0.1	0	0.0	0	0.0	2	0.0
			20	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	-0.1
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 58: Tranquillity Sites in Relation to N60, Night-Time, Option 1 vs Baseline, Comparison Table for 2036

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	Comparison N60 (night)	5	1	0.3	0	-0.6	1	1.1	0	0.0	0	0.0	6	0.1
			10	-1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
			20	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 59: Tranquillity Sites in Relation to N60, Night-Time, Option 1, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	N60 (night)	5	2	0.5	2	6.2	5	8.7	0	0.0	0	0.0	19	0.9
			10	1	0.3	2	2.1	5	5.5	0	0.0	0	0.0	15	0.6
			20	1	0.1	2	1.9	5	4.3	0	0.0	0	0.0	10	0.5
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0

Table 60: Tranquillity Sites in Relation to N60, Night-Time, Option 1, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	N60 (night)	5	3	0.8	2	6.3	6	9.5	0	0.0	0	0.0	24	1.0
			10	1	0.4	2	2.4	5	6.1	0	0.0	0	0.0	16	0.6
			20	1	0.2	2	2.0	5	4.8	0	0.0	0	0.0	12	0.5
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0

Table 61: Tranquillity Sites in Relation to Overflight Daytime, Option 1, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	Overflights Day	5	5	9.9	7	5.8	15	13.8	0	0.0	1	0.3	107	2.2
			10	3	8.0	6	5.6	10	6.0	0	0.0	0	0.0	75	1.7
			20	2	0.5	2	4.7	7	5.4	0	0.0	0	0.0	58	1.4
			50	1	0.1	2	2.8	4	3.2	0	0.0	0	0.0	30	1.0
			100	1	0.0	2	0.6	3	1.3	0	0.0	0	0.0	22	0.7

Note that comparison tables for tranquillity sites in the daytime are in Section 4 of the FOA.

Table 62: Tranquillity Sites in Relation to Overflight Daytime, Option 1, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	Overflights Day	5	5	10.0	7	5.8	15	14.0	0	0.0	1	0.4	107	2.2
			10	3	8.3	6	5.6	13	10.8	0	0.0	0	0.0	84	2.0
			20	2	0.5	2	4.8	7	5.5	0	0.0	0	0.0	65	1.5
			50	2	0.2	2	4.4	5	4.4	0	0.0	0	0.0	37	1.2
			100	1	0.0	2	0.7	4	1.4	0	0.0	0	0.0	23	0.8
			200	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	3	0.3

Note that comparison tables for tranquillity sites in the daytime are in Section 4 of the FOA.

Table 63: Tranquillity Sites in Relation to Overflight Night-Time Option 1 vs Baseline, Comparison Table for 2027

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	Comparison Overflight Night	5		-0.5	0	-0.4	-3	-7.3	0	0.0	0	0.0	-13	-0.9
			10	2	0.2	1	0.1	3	1.1	0	0.0	0	0.0	20	0.5
			20	0	0.0	0	0.0	0	-0.1	0	0.0	0	0.0	0	0.1

Table 64: Tranquillity Sites in Relation to Overflight Night-Time, Option 1 vs Baseline, Comparison Table for 2036

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	Comparison Overflight Night	5		-0.5	0	-0.2	-7	-13.5	0	0.0	0	0.0	-24	-1.5
			10	2	0.3	1	0.1	4	1.3	0	0.0	0	0.0	21	0.6
			20		0.0	1	0.1	2	1.0	0	0.0	0	0.0	18	0.4

Table 65: Tranquillity Sites in Relation to Overflight Night-Time, Option 1, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	Overflight Night	5	2	0.5	2	4.5	6	5.1	0	0.0	0	0.0	46	1.3
			10	2	0.2	2	0.8	5	1.7	0	0.0	0	0.0	27	0.9
			20	0	0.0	1	0.5	2	0.2	0	0.0	0	0.0	4	0.4

Table 66: Tranquillity Sites in Relation to Overflight Night-Time, Option 1, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Country Parks		CQA		Gardens and Designated Landscapes		National Parks		NSA		SAMs	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	Overflight Night	5	2	0.5	2	4.6	7	5.3	0	0.0	0	0.0	47	1.3
			10	2	0.3	2	0.8	6	2.0	0	0.0	0	0.0	28	1.1
			20	1	0.0	2	0.6	4	1.4	0	0.0	0	0.0	23	0.8

3.7 Biodiversity Sites in relation to L_{Aeq}, Nx and Overflight contours for Option 1

4. Tables showing biodiversity sites in relation to L_{Aeq}, Nx and Overflight contours for Option 1 are provided below. Comparison tables for overflights can be found in Section 4 of the FOA.

Table 67: Biodiversity Sites in Relation to $L_{Aeq,\ 16\ Hr}$, Day-Time, Option 1 vs Baseline, Comparison Table for 2027

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	Comparison L_{Aeq}16hr	51	0	-0.1	0	0.0	0	1.0	0	0.0	0	1.5	0	1.9
			54	0	0.0	0	0.0	0	-0.1	0	0.0	0	-0.1	0	-0.1
			57	-1	0.0	0	0.0	0	0.0	0	0.0	0	-0.1	0	0.0
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			69	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 68: Biodiversity Sites in Relation to $L_{Aeq,\ 16\ Hr}$, Day-Time, Option 1 vs Baseline, Comparison Table for 2036

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	Comparison L_{Aeq}16hr	51	-1	-0.1	0	0.0	0	1.0	0	0.0	0	3.3	1	1.0
			54	0	0.0	0	0.0	0	0.2	0	0.0	0	0.1	0	0.2
			57	0	0.0	0	0.0	0	-0.1	0	0.0	0	-0.2	0	-0.1
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			69	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 69: Biodiversity Sites in Relation to $L_{Aeq,\ 16\ Hr}$, Day-Time, Option 1, 2027

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	L_{Aeq}16hr	51	1	0.2	0	0.0	1	5.0	0	0.0	3	17.9	1	5.0
			54	1	0.1	0	0.0	1	1.9	0	0.0	3	5.0	1	1.9
			57	0	0.0	0	0.0	1	0.5	0	0.0	2	0.7	1	0.5
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			69	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 70: Biodiversity Sites in Relation to $L_{Aeq,\ 16\ Hr}$, Day-Time, Option 1, 2036

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	L_{Aeq}16hr	51	1	0.3	0	0.0	1	5.3	0	0.0	3	24.7	2	5.3
			54	1	0.1	0	0.0	1	3.1	0	0.0	3	7.4	1	3.1
			57	1	0.0	0	0.0	1	0.6	0	0.0	2	1.2	1	0.6
			60	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	1	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			69	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 71: Biodiversity Sites in Relation to $L_{Aeq,\ 8\ Hr}$, Night-Time, Option 1 vs Baseline, Comparison Table for 2027

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	Comparison L_{Aeq}8hr	45	-1	-0.4	0	0.0	0	1.1	0	0.0	0	5.5	0	1.0
			48	0	-0.1	0	0.0	0	0.1	0	0.0	0	0.5	0	0.1
			51	0	0.0	0	0.0	0	-0.1	0	0.0	0	-0.1	0	-0.1
			54	0	0.0	0	0.0	0	0.0	0	0.0	0	-0.1	0	0.0
			57	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 72: Biodiversity Sites in Relation to $L_{Aeq,\ 8\ Hr}$, Night-Time, Option 1 vs Baseline, Comparison Table for 2036

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	Comparison L_{Aeq}8hr	45	0	-0.6	0	0.0	0	1.1	0	0.0	0	8.2	0	0.9
			48	0	0.0	0	0.0	0	0.2	0	0.0	0	1.0	0	0.7
			51	0	-0.1	0	0.0	0	-0.2	0	0.0	0	-0.1	0	-0.2
			54	0	0.0	0	0.0	0	-0.1	0	0.0	0	-0.1	0	-0.1
			57	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 73: Biodiversity Sites in Relation to $L_{Aeq,\ 8\ Hr}$, Night-Time, Option 1, 2027

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	L_{Aeq}8hr	45	1	0.3	0	0.0	1	5.2	0	0.0	3	29.5	2	5.2
			48	1	0.1	0	0.0	1	2.9	0	0.0	3	9.8	1	2.9
			51	1	0.0	0	0.0	1	0.9	0	0.0	3	3.1	1	0.9
			54	0	0.0	0	0.0	1	0.4	0	0.0	2	0.4	1	0.4
			57	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 74: Biodiversity Sites in Relation to $L_{Aeq,\ 8\ Hr}$, Night-Time, Option 1, 2036

Year	Scenario	Metric	Contour (dB)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	L_{Aeq}8hr	45	2	0.4	0	0.0	1	5.5	0	0.0	3	38.2	3	5.5
			48	1	0.2	0	0.0	1	4.1	0	0.0	3	13.3	1	4.1
			51	1	0.0	0	0.0	1	1.0	0	0.0	3	4.4	1	1.0
			54	0	0.0	0	0.0	1	0.5	0	0.0	2	0.8	1	0.5
			57	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			60	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			63	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
			66	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 75: Biodiversity Sites in Relation to N65, Daytime, Option 1 vs Baseline, Comparison Table for 2027

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	Comparison N65 (day)	5	0	-0.4	0	0.0	0	0.1	0	0.0	0	-0.9	-1	0.1
			10	0	-0.3	0	0.0	0	0.7	0	0.0	0	4.6	-1	0.7
			20	0	-0.1	0	0.0	0	0.8	0	0.0	0	1.3	-1	0.5
			50	-1	0.0	0	0.0	0	0.8	0	0.0	0	2.3	0	0.8
			100	0	0.0	0	0.0	0	-0.1	0	0.0	0	-0.4	0	-0.1
			200	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 76: Biodiversity Sites in Relation to N65, Daytime, Option 1 vs Baseline, Comparison Table for 2036

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	Comparison N65 (day)	5	0	-0.4	0	0.0	0	0.1	0	0.0	0	-2.6	-1	0.2
			10	0	-0.4	0	0.0	-1	0.5	0	0.0	-1	2.3	-6	0.4
			20	0	-0.2	0	0.0	0	0.8	0	0.0	0	1.9	-1	0.5
			50	0	-0.1	0	0.0	0	0.8	0	0.0	0	1.6	1	0.8
			100	0	0.0	0	0.0	0	-0.1	0	0.0	0	-0.3	0	-0.1
			200	0	0.0	0	0.0	-1	-0.3	0	0.0	-1	-0.3	-1	-0.3

Table 77: Biodiversity Sites in Relation to N65, Daytime, Option 1, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	N65 (day)	5	2	0.6	0	0.0	3	6.2	0	0.0	5	55.5	10	6.6
			10	2	0.5	0	0.0	1	6.0	0	0.0	3	48.4	4	6.4
			20	2	0.4	0	0.0	1	5.6	0	0.0	3	32.8	3	5.7
			50	1	0.2	0	0.0	1	4.6	0	0.0	3	18.2	1	4.6
			100	1	0.1	0	0.0	1	1.1	0	0.0	3	6.9	1	1.1
			200	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 78: Biodiversity Sites in Relation to N65, Daytime, Option 1, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	N65 (day)	5	2	0.7	0	0.0	3	6.4	0	0.0	5	58.0	11	6.9
			10	2	0.5	0	0.0	1	6.1	0	0.0	3	49.9	4	6.4
			20	2	0.4	0	0.0	1	5.8	0	0.0	3	37.1	3	5.9
			50	2	0.2	0	0.0	1	4.9	0	0.0	3	21.0	3	5.0
			100	1	0.1	0	0.0	1	1.2	0	0.0	3	7.8	1	1.2
			200	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 79: Biodiversity Sites in Relation to N60, Night-Time, Option 1 vs Baseline, Comparison Table for 2027

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	Comparison N60 (night)	5	0	-0.6	0	0.0	0	0.6	0	0.0	0	13.4	-3	0.4
			10	0	-0.5	0	0.0	0	0.1	0	0.0	0	1.9	-1	-0.2
			20	-1	-0.2	0	0.0	0	0.0	0	0.0	0	0.6	0	0.0
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 80: Biodiversity Sites in Relation to N60, Night-Time, Option 1 vs Baseline, Comparison Table for 2036

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	Comparison N60 (night)	5	0	-0.5	0	0.0	-1	2.0	0	0.0	-1	19.5	-1	1.9
			10	0	-0.7	0	0.0	0	0.1	0	0.0	0	1.9	-1	-0.2
			20	0	-0.5	0	0.0	0	0.1	0	0.0	0	1.2	-1	0.1
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 81: Biodiversity Sites in Relation to N60, Night-Time, Option 1, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	N60 (night)	5	2	1.2	0	0.0	1	6.0	0	0.0	3	68.5	5	6.2
			10	2	0.8	0	0.0	1	2.1	0	0.0	3	27.5	2	2.1
			20	1	0.2	0	0.0	1	1.9	0	0.0	3	21.5	1	1.9
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 82: Biodiversity Sites in Relation to N60, Night-Time, Option 1, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	N60 (night)	5	2	1.3	0	0.0	2	7.6	0	0.0	4	82.1	7	7.9
			10	2	0.9	0	0.0	1	2.4	0	0.0	3	29.2	2	2.4
			20	2	0.3	0	0.0	1	2.0	0	0.0	3	23.4	1	2.0
			50	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 83: Biodiversity Sites in Relation to Overflight Daytime, Option 1, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	Overflights Day	5	2	1.7	0	0.0	8	9.3	3	15.0	12	235.6	38	36.2
			10	1	1.2	0	0.0	5	6.3	3	13.9	9	202.7	23	30.0
			20	1	0.6	0	0.0	4	5.3	3	10.6	6	149.0	16	22.5
			50	1	0.4	0	0.0	3	2.8	2	6.9	5	59.8	8	13.3
			100	1	0.1	0	0.0	2	0.6	0	0.0	4	33.1	2	0.6

Table 84: Biodiversity Sites in Relation to Overflight Daytime, Option 1, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	Overflights Day	5	2	1.8	0	0.0	8	9.5	3	15.2	12	241.4	39	36.7
			10	1	1.3	0	0.0	7	6.7	3	14.2	11	217.7	34	31.7
			20	1	0.9	0	0.0	5	5.5	3	11.1	9	172.4	22	25.4
			50	1	0.4	0	0.0	4	5.0	3	8.9	6	93.6	13	19.4
			100	1	0.1	0	0.0	3	0.7	1	0.0	5	37.1	4	0.7
			200	0	0.0	0	0.0	0	0.0	0	0.0	1	3.9	0	0.0

Table 85: Biodiversity Sites in Relation to Overflight Night-Time, Option 1, 2027

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2027	Option 1	Overflight Night	5	1	0.5	0	0.0	5	5.3	3	1.0	9	164.5	20	14.0
			10	1	0.3	0	0.0	3	0.8	1	0.1	5	43.1	4	0.9
			20	0	0.0	0	0.0	1	0.5	0	0.0	3	13.9	1	0.5

Table 86: Biodiversity Sites in Relation to Overflight Night-Time, Option 1, 2036

Year	Scenario	Metric	Contour (Flights per Day)	Local Nature Reserves		National Nature Reserves		RAMSAR		SAC		SPA		SSSI	
				Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)	Total	Area (km2)
2036	Option 1	Overflight Night	5	1	0.5	0	0.0	5	5.5	3	1.1	9	174.4	21	14.8
			10	1	0.4	0	0.0	3	0.9	1	0.1	5	45.4	7	4.3
			20	1	0.1	0	0.0	3	0.7	0	0.0	5	36.1	3	0.7

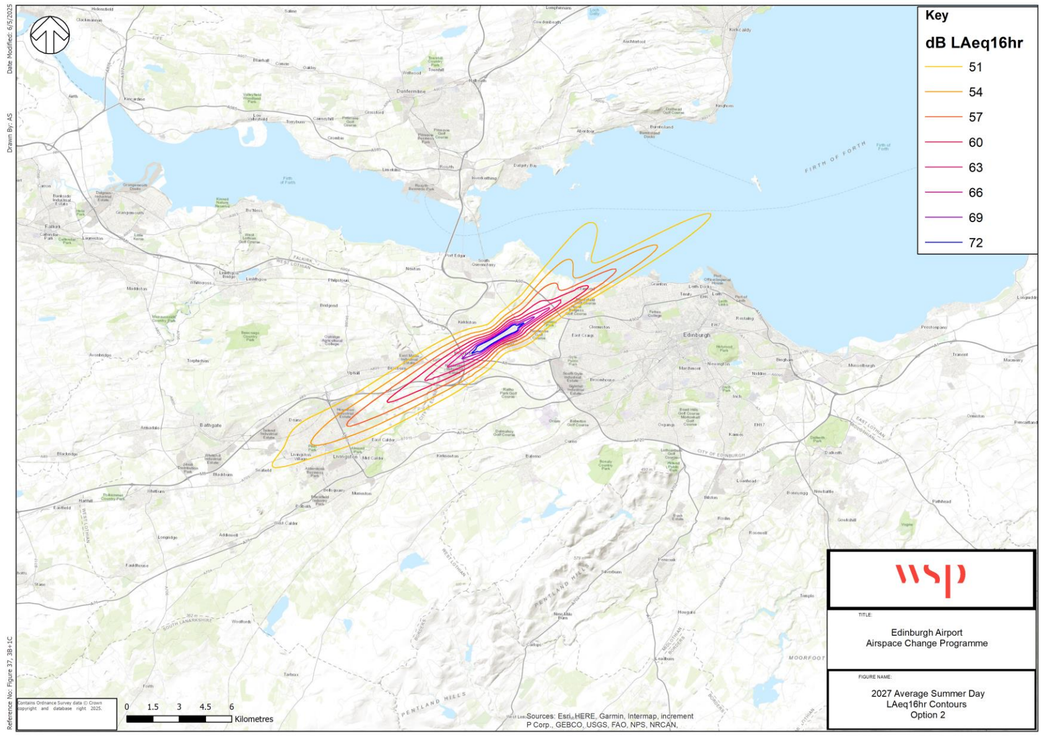


Figure 65: $L_{Aeq,\ 16\ Hr}$, Daytime Option 2, 2027

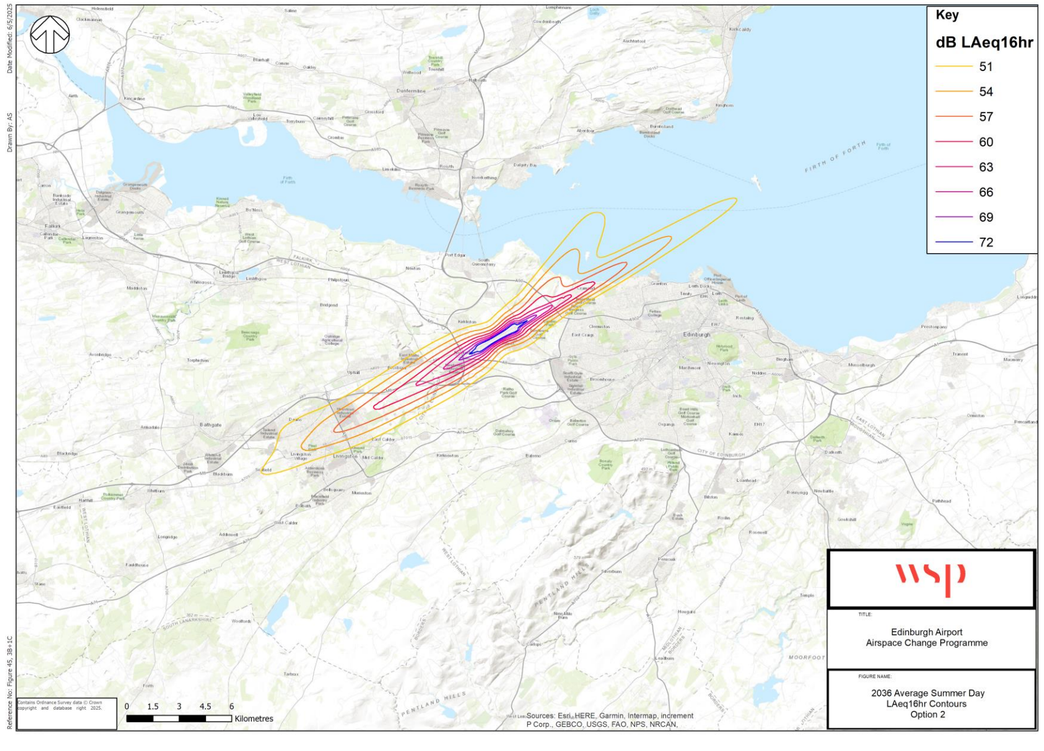


Figure 66: $L_{Aeq,\ 16\ Hr}$, Daytime Option 2, 2036

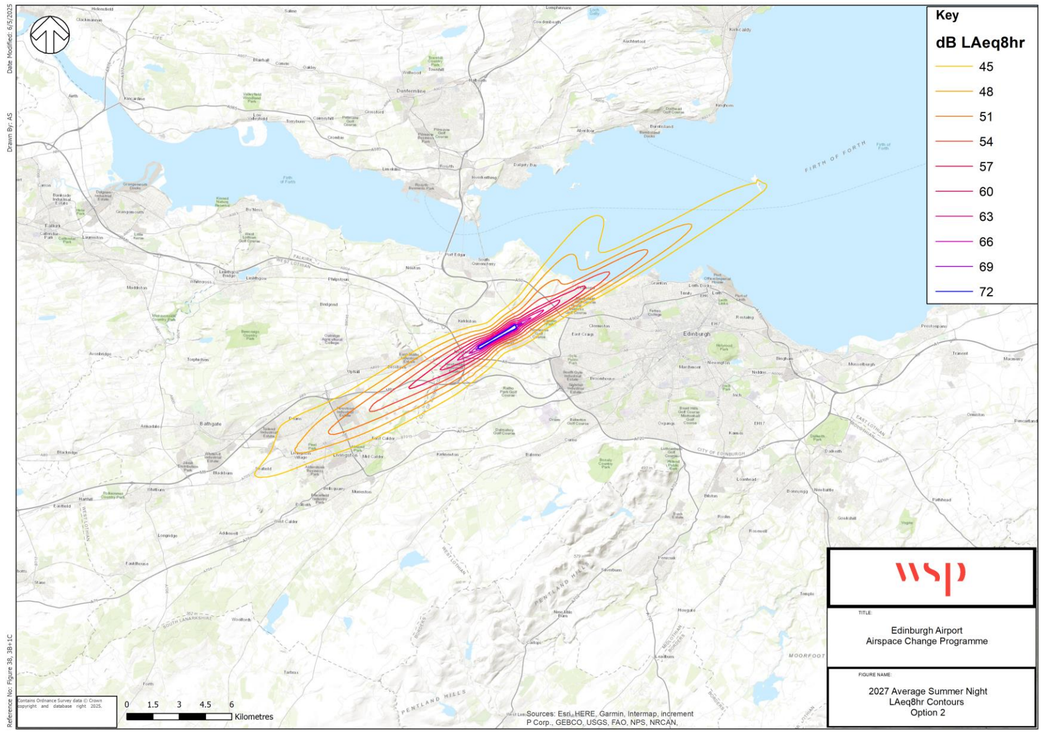
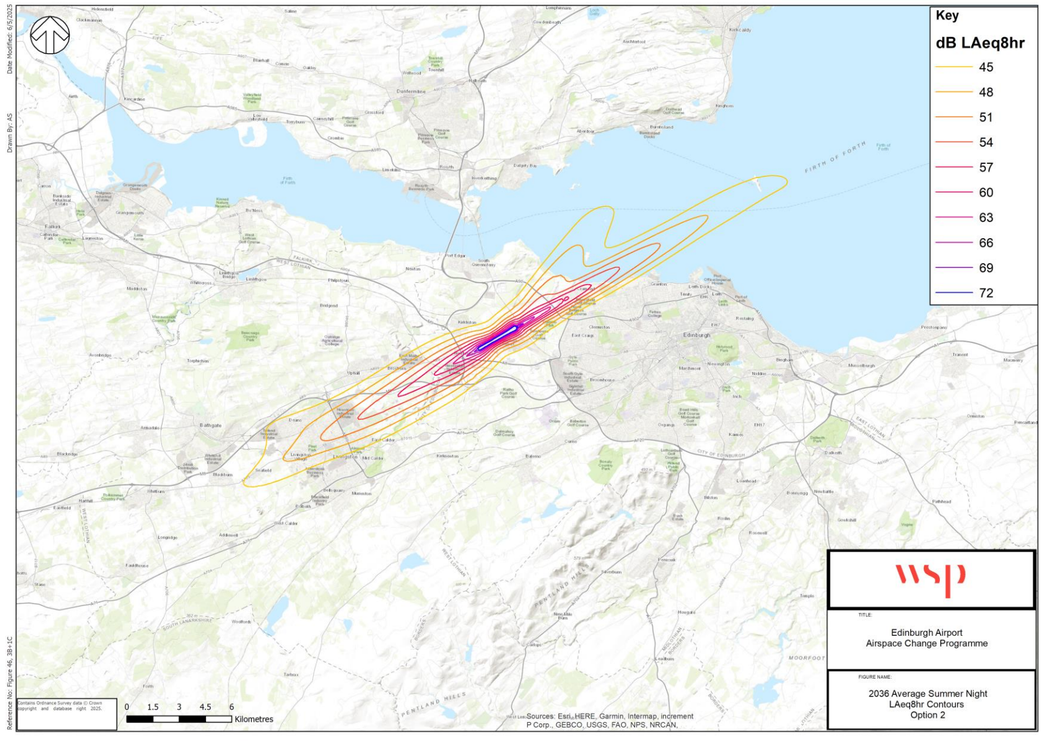


Figure 67: $L_{Aeq,\ 8\ Hr}$, Night-Time Option 2, 2027



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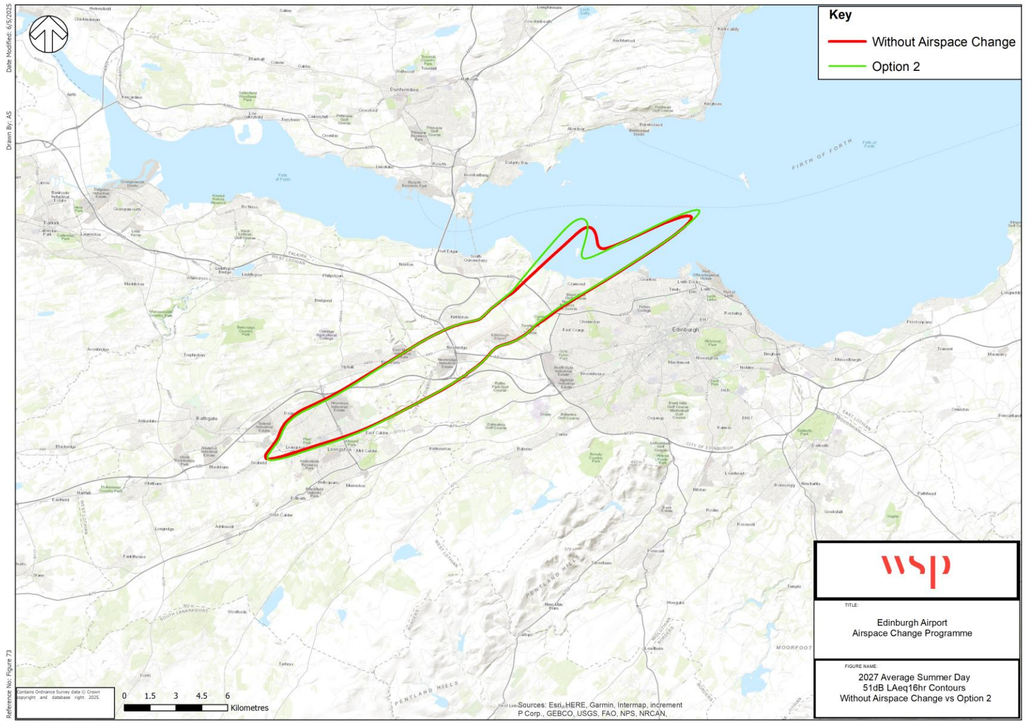


Figure 69: $L_{Aeq,\ 16\ Hr}$, Day-Time 51dB Comparison Option 2 vs Baseline, 2027

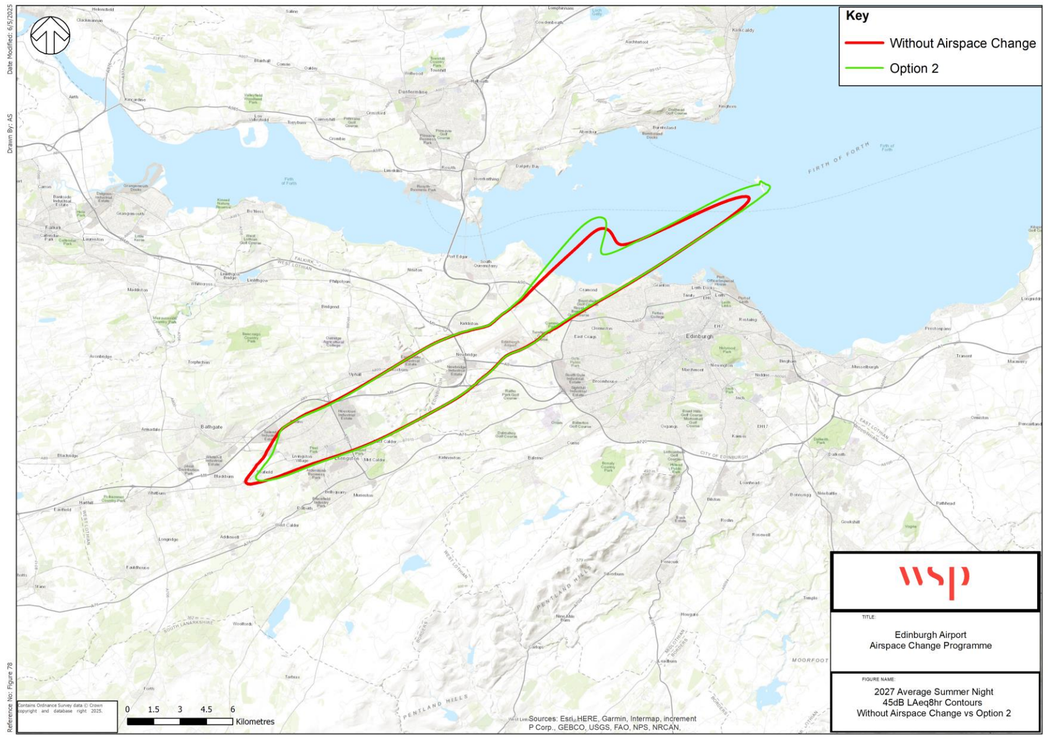
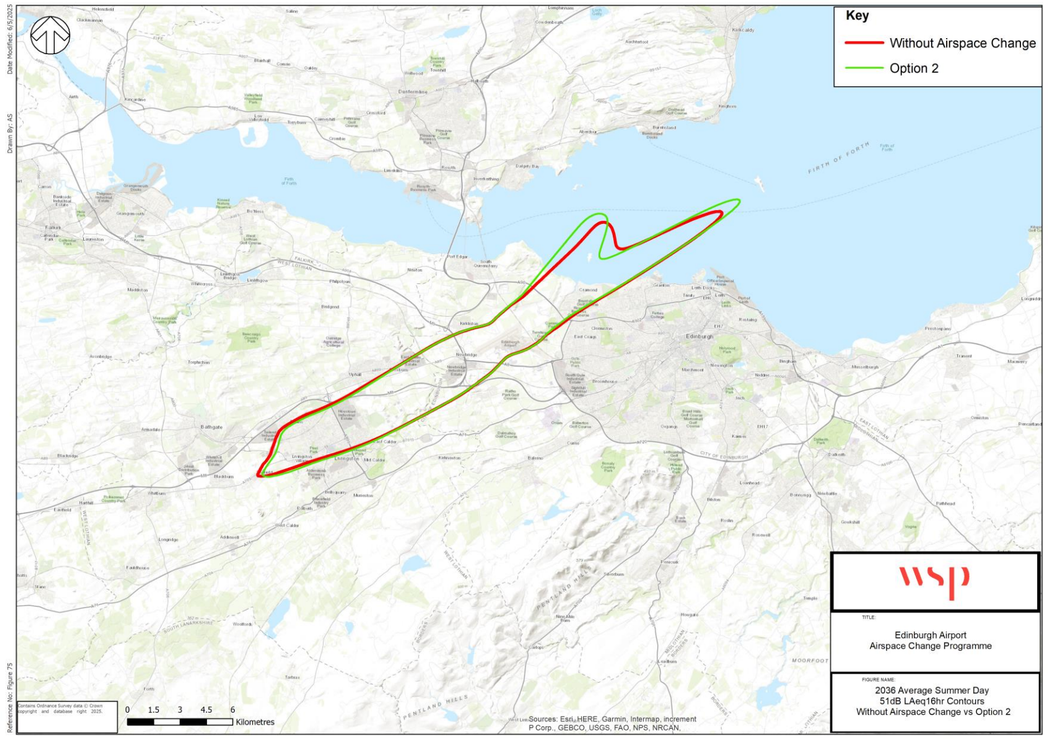


Figure 70: $L_{Aeq,\ 8\ Hr}$, Night-Time 45dB Comparison Option 2 vs Baseline, 2027



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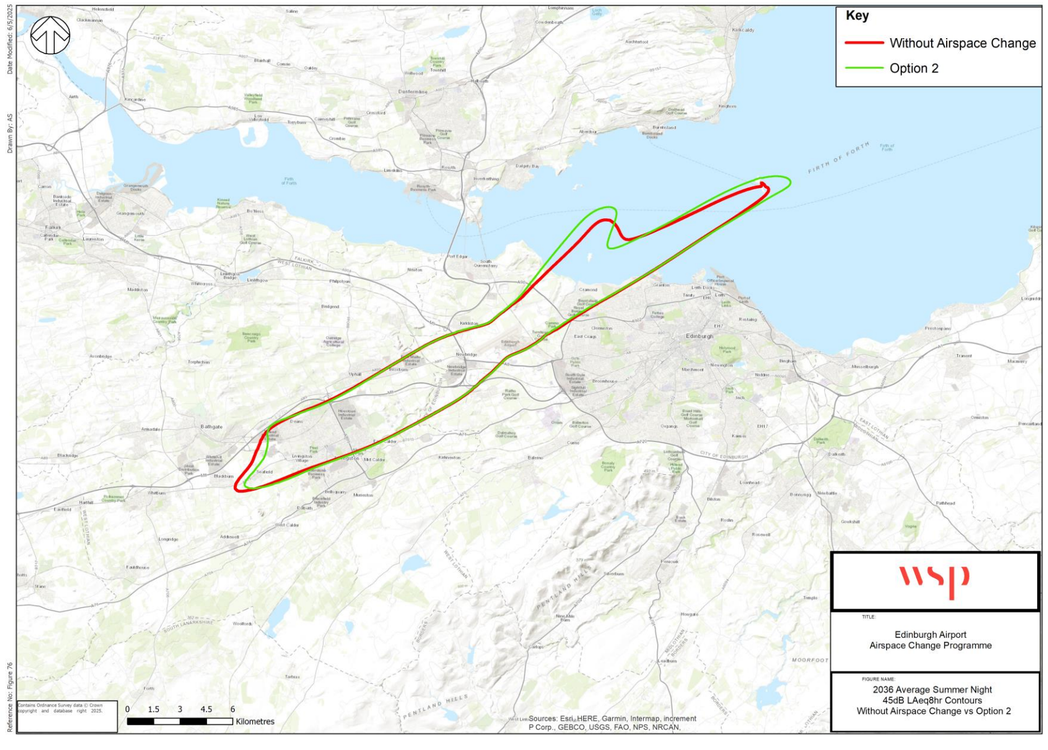

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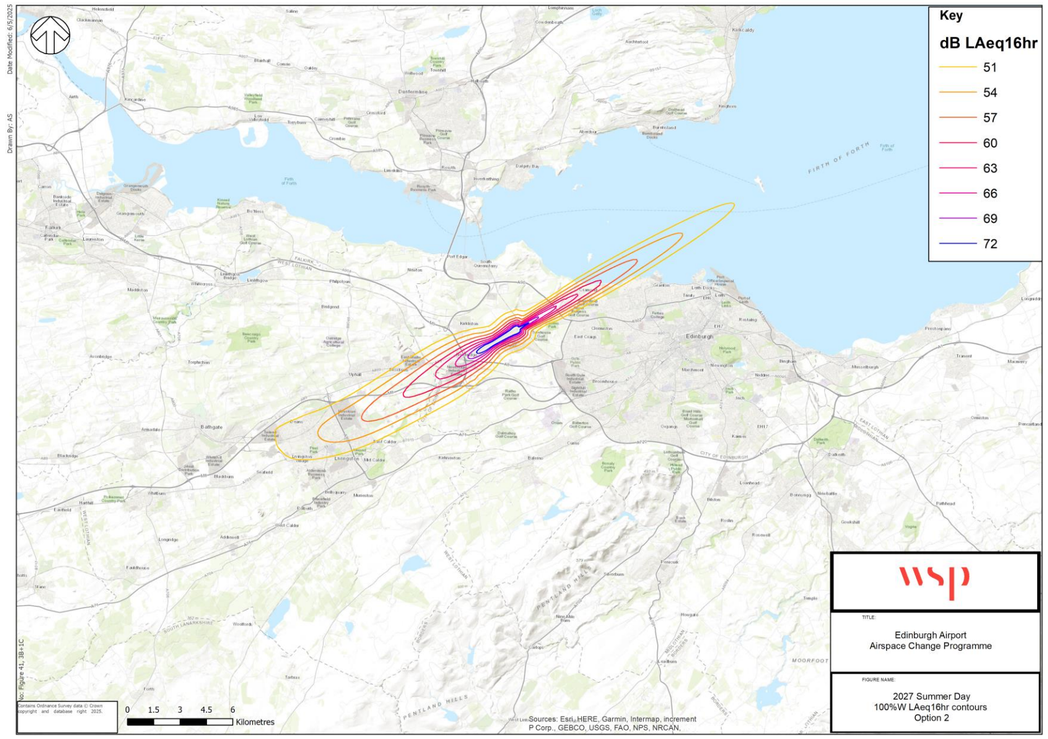

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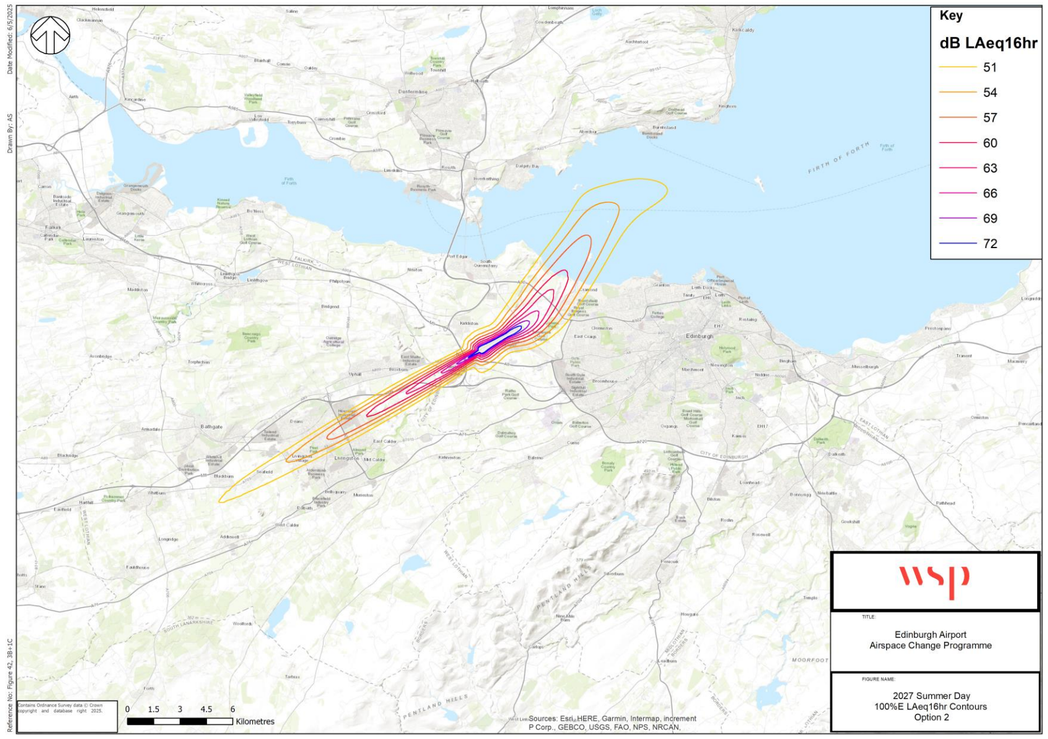


Figure 74: $L_{Aeq,\ 16\ Hr}$, Day-Time 100% East Option 2, 2027

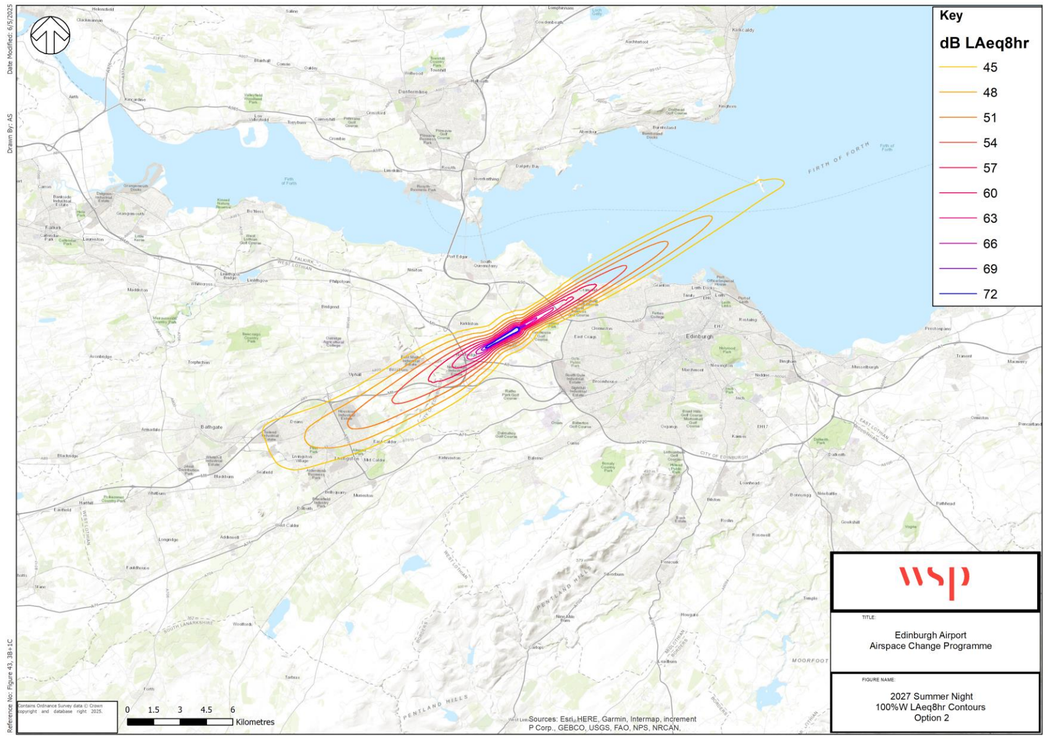
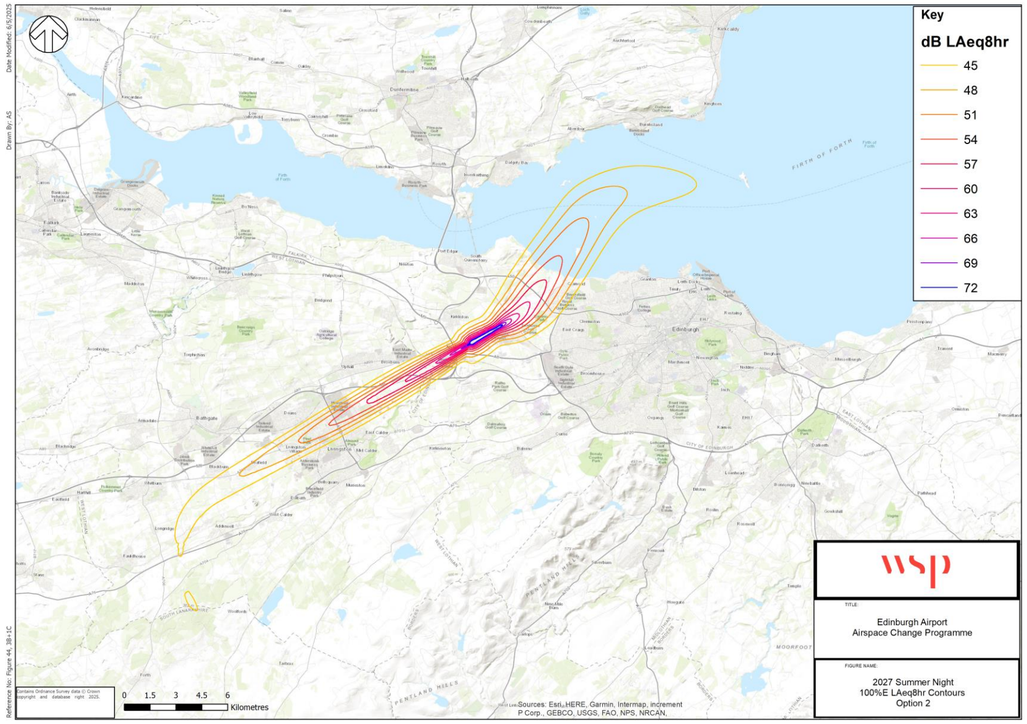


Figure 75: $L_{Aeq,\ 8\ Hr}$, Night-Time 100% West Option 2, 2027



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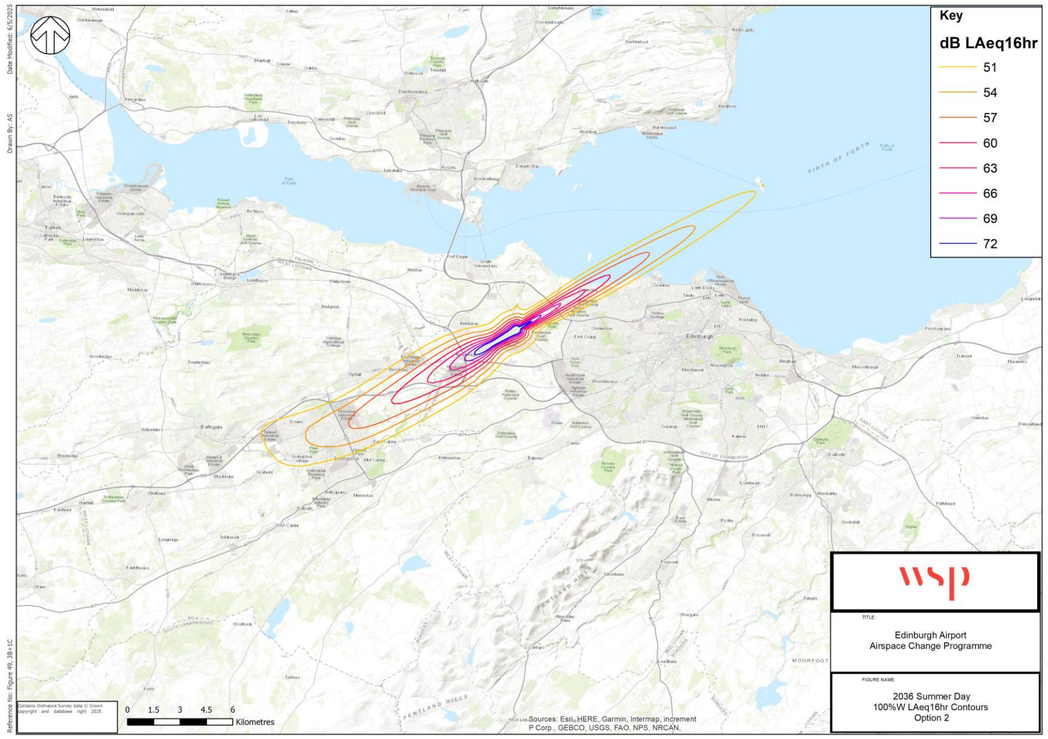

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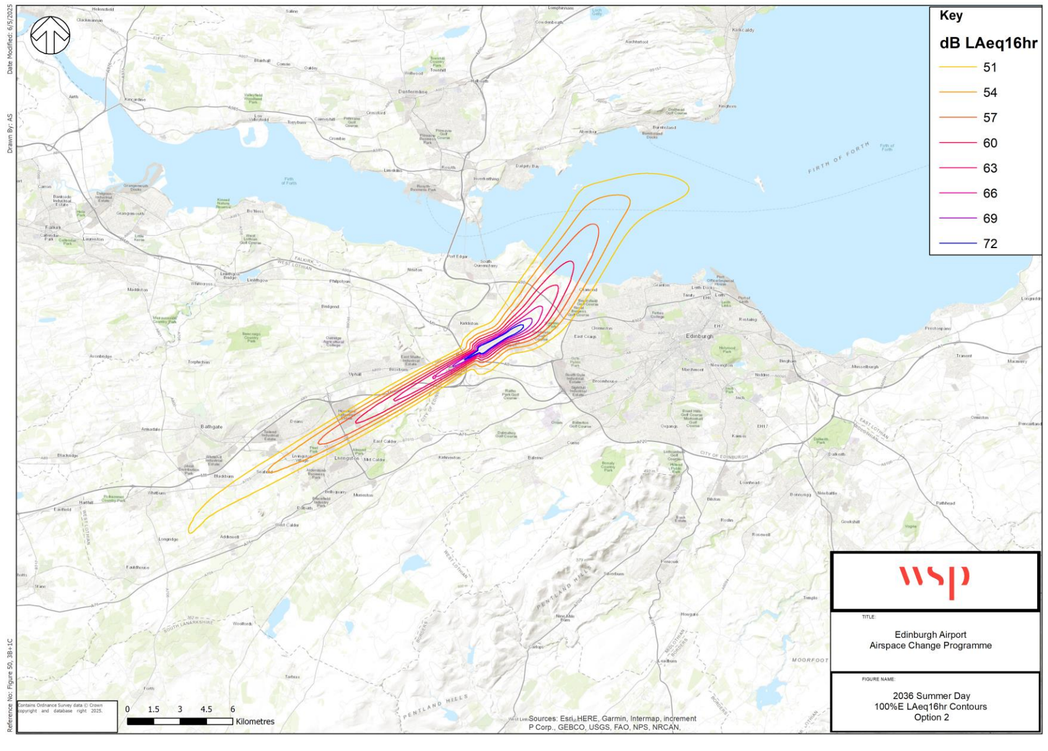

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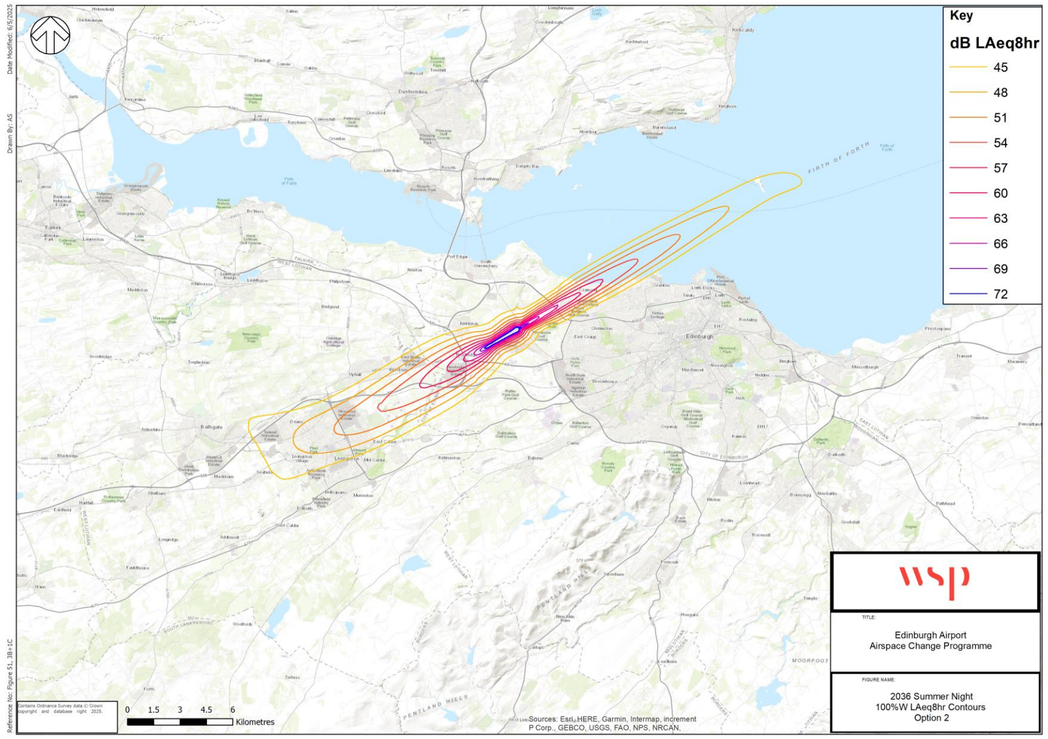


Figure 79: $L_{Aeq,\ 8\ Hr}$, Night-Time 100% West Option 2, 2036

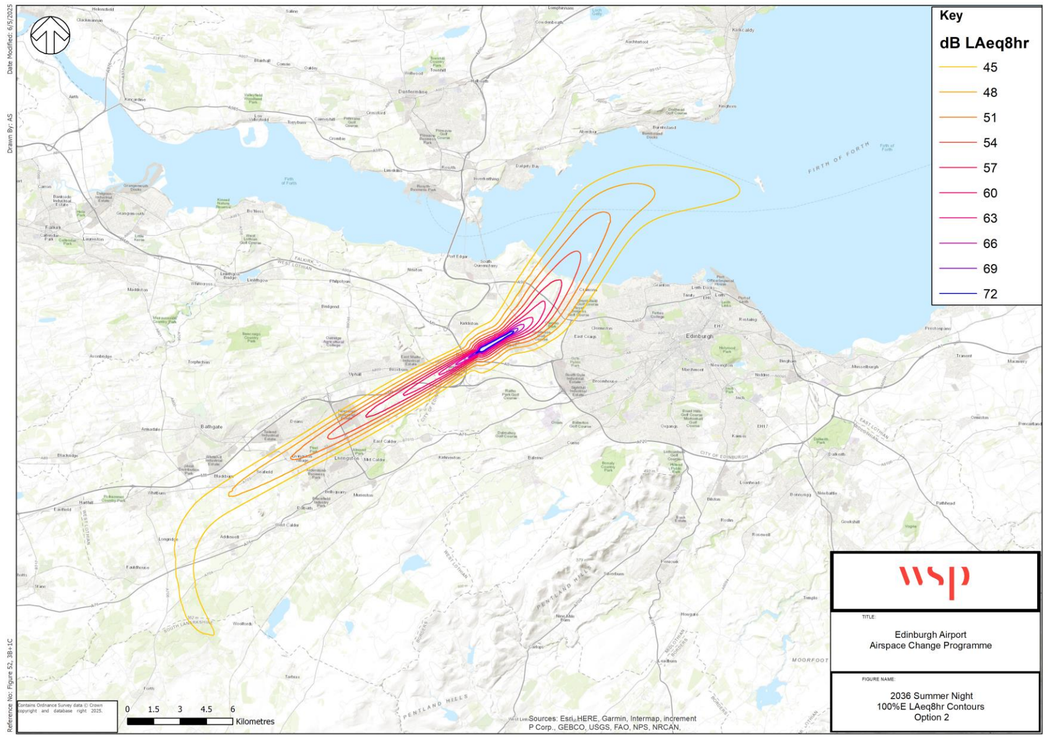


Figure 80: $L_{Aeq,\ 8\ Hr}$, Night-Time 100% East Option 2, 2036

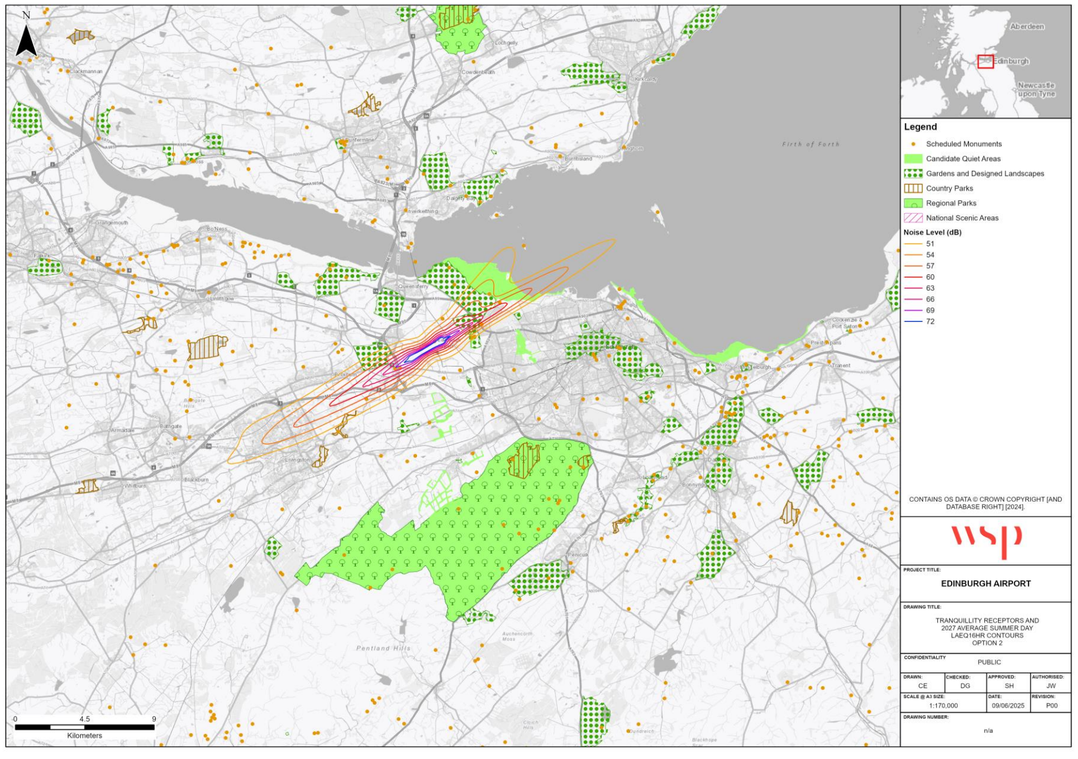
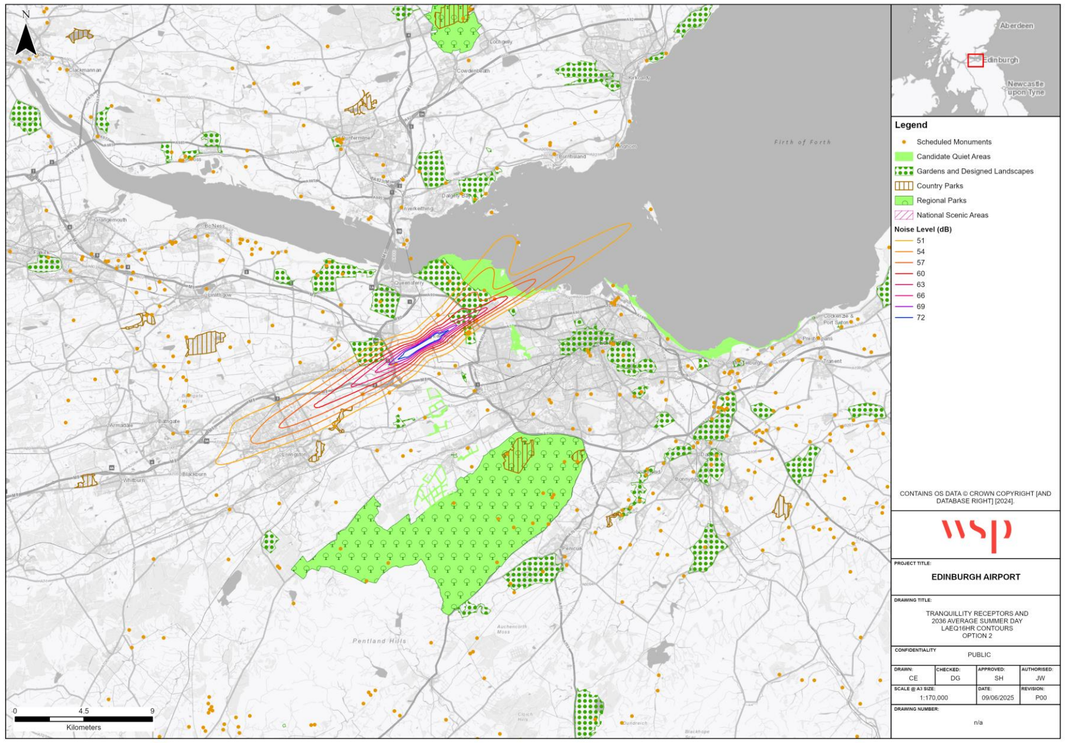


Figure 81: Tranquillity Receptors $L_{Aeq,\ 16\ Hr}$, Day-Time Option 2, 2027



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