

SANDY KNOWE WIND FARM SECTION 36 APPLICATION

Revised Noise Assessment

October 2019

Appendix H – Evaluation of
Cumulative Compliance at NSR Hillend



8m/s

Wind direction	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	Max	Min		
Sandy Knowe	39.7	39.7	39.6	39.3	39.0	38.6	37.4	37.3	36.8	36.7	35.7	35.3	34.5	34.4	34.1	34.0	34.3	34.6	35.1	35.9	36.2	36.9	37.5	38.0	38.7	38.8	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	34.0
Sanquhar Community	30.2	29.8	29.3	28.8	28.8	28.9	29.2	29.8	29.8	30.6	31.0	31.4	32.1	32.6	32.7	34.0	34.1	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	28.8
Sanquhar Six	20.1	20.2	20.5	20.9	21.7	22.6	23.6	24.4	25.0	26.2	26.8	27.3	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.1	26.7	26.7	25.8	24.8	24.1	23.1	22.1	21.3	20.6	20.3	27.6	20.1	
Hare Hill Ext	38.6	39.3	39.7	40.0	40.6	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.6	40.4	40.2	39.8	38.9	38.1	37.6	36.7	35.8	35.0	34.2	33.7	33.6	33.8	34.1	34.6	35.2	36.0	36.7	37.6	40.9	33.6			
Hare Hill	32.9	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	32.7	31.8	31.3	30.3	29.6	28.7	27.7	26.8	26.2	25.8	25.5	25.6	26.1	26.8	27.6	28.6	29.6	30.4	30.6	31.4	32.4	32.7	33.0	25.5			
Letham	20.4	20.4	20.4	20.4	20.4	20.4	20.2	19.3	18.6	18.1	17.4	16.4	15.5	14.7	14.1	13.8	13.7	13.7	13.7	13.8	14.0	14.7	15.6	16.6	17.5	18.1	18.7	19.8	20.3	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	13.7		
Glenmuckloch	18.1	18.1	18.1	18.1	18.1	18.1	17.7	16.5	16.1	15.6	14.6	13.6	12.6	11.6	10.9	10.7	10.7	10.7	10.9	11.7	12.7	13.7	14.7	15.7	16.1	16.8	17.9	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	10.7		
Whiteside	16.7	15.8	15.2	15.0	15.0	15.1	15.6	16.5	17.5	18.5	19.5	20.1	20.4	21.7	22.2	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	21.5	20.8	20.2	19.6	18.7	17.7	22.5	15.0			
Ulzie side	14.6	13.6	12.6	11.8	11.5	11.5	11.5	11.5	11.6	12.3	13.3	14.3	15.3	16.3	16.9	17.1	18.4	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.8	17.7	16.9	16.6	15.6	18.9	11.5			
Total	43.0	43.2	43.3	43.4	43.5	43.6	43.2	43.1	43.2	43.0	43.0	42.9	42.9	42.8	42.9	42.7	42.6	42.6	42.5	42.0	41.9	41.9	41.7	41.8	41.7	42.0	42.0	41.9	41.9	42.0	42.0	42.1	42.3	42.5	42.7	43.6	41.7			

HH Limit	41.2	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7
Total Hare Hill	39.6	40.2	40.6	40.8	41.3	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.5	41.4	41.3	41.0	40.8	40.5	40.1	39.2	38.4	37.9	37.0	36.2	35.4	34.8	34.5	34.6	34.9	35.4	36.0	36.5	37.3	38.1	38.8	41.6		
Corr Hare Hill	39.2	39.3	39.7	39.9	40.4	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.6	40.5	40.4	40.1	39.9	39.6	39.2	38.3	37.5	37.0	36.1	35.3	34.5	33.9	33.6	33.7	34.0	34.5	35.1	35.6	36.4	37.2	37.9			
Total Others	32.6	32.3	31.8	31.5	31.6	31.9	32.3	32.9	33.1	34.0	34.4	34.7	35.4	35.8	35.9	36.9	37.0	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.0	37.0	36.9	36.4	36.4	35.3	34.9	34.7	33.9	33.4				
Residual SK	43.3	43.3	43.2	43.1	42.8	42.6	42.6	42.5	42.5	42.4	42.3	42.2	42.1	42.2	42.2	42.2	42.2	42.4	42.6	43.0	43.2	43.3	43.5	43.6	43.8	43.8	43.9	43.9	43.9	43.9	44.0	44.0	43.9	43.8	43.7				
Limit	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45		
Exceedance	-3.6	-3.6	-3.6	-3.8	-3.9	-4.0	-5.3	-5.3	-5.8	-5.7	-6.6	-7.0	-7.6	-7.7	-8.0	-8.0	-7.9	-7.6	-7.3	-6.7	-6.7	-6.3	-5.8	-5.5	-4.9	-4.9	-4.2	-4.2	-4.2	-4.2	-4.2	-4.3	-4.3	-4.2	-4.1	-4.0	-3.6		
Simplified noise limit	43.2	43.2	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	
Exceedance	-3.5	-3.5	-2.4	-2.7	-3.0	-3.4	-4.6	-4.7	-5.2	-5.3	-6.3	-6.7	-7.5	-7.6	-7.9	-8.0	-7.7	-7.4	-6.9	-6.1	-5.8	-6.3	-5.7	-5.2	-4.5	-4.4	-3.5	-3.5	-3.5	-3.5	-3.5	-3.5	-3.5	-3.5	-3.5	-3.5	-2.4		

Wind direction	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	Max	Min
Sandy Knowe	39.7	39.7	39.6	39.3	39.0	38.6	37.4	37.3	36.8	36.7	35.7	35.3	34.5	34.4	34.1	34.0	34.3	34.6	35.1	35.9	36.2	36.9	37.5	38.0	38.7	38.8	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	34.0
Sanquhar Community	32.9	32.5	32.0	31.5	31.5	31.6	31.9	32.5	32.5	33.3	33.7	34.1	34.8	35.3	35.4	36.7	36.8	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	31.5
Sanquhar Six	20.1	20.2	20.5	20.9	21.7	22.6	23.6	24.4	25.0	26.2	26.8	27.3	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.1	26.7	26.7	25.8	24.8	24.1	23.1	22.1	21.3	20.6	20.3	27.6	20.1
Hare Hill Ext	38.6	39.3	39.7	40.1	40.6	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	40.9	40.6	40.4	40.2	39.8	38.9	38.1	37.6	36.7	35.8	35.0	34.2	33.7	33.6	33.8	34.2	34.6	35.3	36.0	36.8	37.6	41.0	33.6
Hare Hill	33.4	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.2	32.3	31.8	30.8	30.1	29.2	28.2	27.3	26.7	26.3	26.0	26.1	26.6	27.3	28.1	29.1	30.1	30.9	31.1	31.9	32.9	33.2	33.5	26.0	
Letham	20.0	20.0	20.0	20.0	20.0	19.7	18.9	18.1	17.7	17.0	16.0	15.1	14.4	13.9	13.7	13.6	13.6	13.6	13.6	13.8	14.3	15.2	16.1	17.1	17.7	18.3	19.3	19.9	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	13.6	
Glenmuckloch	18.5	18.5	18.5	18.5	18.5	18.5	18.1	16.9	16.5	16.0	15.0	14.0	13.0	12.0	11.3	11.0	11.0	11.0	11.3	12.1	13.1	14.1	15.1	16.1	16.5	17.2	18.3	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	11.0	
Whiteside	16.7	15.8	15.2	15.0	15.0	15.1	15.6	16.5	17.5	18.5	19.5	20.1	20.4	21.7	22.2	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	21.5	20.8	20.2	19.6	18.7	17.7	22.5	15.0	
Ulzie side	14.1	13.1	12.1	11.4	11.1	11.1	11.1	11.1	11.3	11.8	12.8	13.8	14.8	15.8	16.4	16.6	17.9	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	11.1
Total	43.2	43.5	43.5	43.6	43.7	43.8	43.4	43.5	43.4	43.4	43.3	43.3	43.3	43.3	43.2	43.4	43.2	43.1	43.0	42.6	42.5	42.5	42.4	42.5	42.3	42.6	42.6	42.6	42.5	42.6	42.4	42.5	42.7	42.8	43.0	43.8	42.3	

Total ETSU Limit	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	
HH Limit	39.7	40.3	40.7	40.9	41.4	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.6	41.5	41.4	41.1	40.8	40.6	40.1	39.6	38.7	37.9	37.4	36.6	35.7	35.0	34.4	34.1	34.2	34.6	35.1	35.6	36.1	36.7	37.5	38.3	38.9	41.7
Corr Hare Hill	39.2	39.8	40.2	40.4	40.9	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.1	41.0	40.9	40.6	40.3	40.1	39.6	38.7	37.9	37.4	36.6	35.7	35.0	34.4	34.1	34.2	34.6	35.1	35.6	36.2	37.0	37.8	38.4			
Total Others	35.1	34.8	34.3	33.9	34.0	34.2	34.5	35.1	35.2</																														



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