



**FEHILY
TIMONEY**

**CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING**

APPENDIX 9.7

**Predicted Cumulative Noise
Levels from Barnadivane Wind
Farm and Garranereagh Wind
Farm at Nearby Noise Sensitive
Locations**



Table 9.7.1: Predicted Cumulative Noise Levels (L_{A90}) from Proposed Wind Farm and Garreneragh Wind Farm at Noise Sensitive Locations for Standardised 10m Wind Speeds of 3 m/s to 12 m/s. The numbering is not sequential as only the noise sensitive locations within the 35 dB LA90 noise contour are presented. Commercial receptors, derelict and uninhabited dwellings were not considered.

Receptor ID	Description	Predicted Noise Level (dB L _{A90}) at Standardised 10m Height Wind Speeds (m/s)							
		3	4	5	6	7	8	9	10
1	Residential	37.4	37.5	38.4	39.8	41.0	41.2	41.5	41.3
2	Residential	31.5	31.5	32.0	32.8	34.1	34.3	34.7	34.6
3	Residential	32.9	32.9	33.2	33.8	35.2	35.5	35.9	35.7
4	Residential	33.8	33.8	34.1	34.7	36.1	36.4	36.8	36.6
5	Residential	34.8	34.8	35.1	35.7	37.1	37.4	37.8	37.6
6	Residential	35.4	35.4	35.7	36.2	37.6	37.9	38.3	38.1
7	Residential (new house)	38.3	38.3	38.4	38.6	40.1	40.4	40.9	40.7
8	Residential	34.7	34.7	34.8	35.1	36.6	36.9	37.3	37.1
9	Residential	37.3	37.3	37.4	37.6	39.1	39.4	39.9	39.7
10	Residential (house currently being built)	33.8	33.8	33.9	34.2	35.7	36.0	36.4	36.3
11	Residential	33.2	33.2	33.3	33.7	35.2	35.4	35.9	35.7
12	Residential	35.4	35.4	35.5	35.8	37.3	37.6	38.0	37.9
13	Residential	38.3	38.3	38.4	38.6	40.1	40.4	40.8	40.7
14	Residential	33.8	33.8	34.1	34.7	36.1	36.3	36.7	36.6
15	Residential	32.6	32.6	33.2	34.3	35.5	35.7	36.0	35.9
16	Residential	29.0	29.5	32.5	35.6	36.2	36.3	36.3	36.3
17	Residential	28.4	28.9	31.9	35.1	35.7	35.7	35.8	35.8
18	Residential	29.7	30.3	33.5	36.8	37.5	37.5	37.5	37.5
19	Derelict	29.7	30.3	33.6	36.8	37.5	37.5	37.5	37.5
20	Residential	28.5	29.0	32.0	35.2	35.9	35.9	36.0	36.0
21	Residential	29.5	30.0	33.2	36.5	37.1	37.2	37.2	37.2
22	Residential	26.5	26.8	29.5	32.6	33.3	33.3	33.4	33.4
23	Residential	26.8	27.1	29.7	32.8	33.5	33.5	33.6	33.6
24	Residential	25.1	25.3	27.7	30.5	31.2	31.3	31.4	31.3
25	Residential	32.2	32.3	32.8	33.9	35.1	35.3	35.7	35.5
26	Residential	31.1	31.2	31.6	32.6	33.8	34.0	34.4	34.3
27	Residential	41.2	41.2	41.3	41.4	43.0	43.3	43.8	43.6
28	Residential	47.2	47.2	47.2	47.3	48.8	49.1	49.6	49.4
29	Residential	31.5	31.7	33.4	35.7	36.6	36.7	36.8	36.8
30	Residential	32.9	33.0	34.1	35.7	36.7	36.9	37.2	37.1
31	Residential	36.7	36.9	37.8	39.4	40.5	40.6	40.9	40.8
32	Residential	37.2	37.3	38.3	39.9	41.0	41.1	41.4	41.3

Receptor ID	Description	Predicted Noise Level (dB L _{A90}) at Standardised 10m Height Wind Speeds (m/s)							
		3	4	5	6	7	8	9	10
33	Derelict	39.6	39.8	41.1	43.0	44.1	44.2	44.4	44.3
34	Residential	39.4	39.6	41.1	43.2	44.1	44.2	44.5	44.4
35	Derelict	37.3	37.6	39.4	41.6	42.6	42.7	42.9	42.8
36	Residential	37.0	38.0	41.6	45.0	45.7	45.7	45.8	45.7
37	Derelict	35.5	36.4	40.1	43.5	44.2	44.2	44.2	44.2
38	Derelict	33.7	34.5	38.0	41.4	42.1	42.1	42.1	42.1
39	Residential	30.5	31.0	34.1	37.4	38.0	38.1	38.1	38.1
40	Residential	26.4	26.6	29.0	31.8	32.5	32.6	32.7	32.6
41	Residential	38.6	38.6	39.2	40.2	41.4	41.6	42.0	41.9
42	Derelict	35.9	36.8	40.3	43.6	44.3	44.3	44.4	44.3
43	Residential	34.4	34.4	35.1	36.2	37.4	37.6	38.0	37.8
44	Residential	24.8	24.9	27.4	30.3	30.9	31.0	31.1	31.1
45	Residential	24.9	25.0	27.5	30.4	31.1	31.1	31.2	31.2
46	Residential	23.9	24.0	26.2	29.0	29.7	29.8	29.9	29.9
47	Residential	28.5	28.9	31.9	35.1	35.8	35.9	35.9	35.9
48	Residential	32.2	32.9	36.5	39.9	40.5	40.5	40.6	40.6
49	Residential	40.3	40.4	40.7	41.4	42.7	43.0	43.4	43.2
51	Residential	28.9	29.4	32.5	35.7	36.4	36.4	36.4	36.4
52	Residential	34.2	34.2	34.5	34.9	36.3	36.6	37.0	36.9
55	Residential	31.6	32.2	35.5	38.8	39.5	39.5	39.5	39.5
56	Residential	36.3	36.4	36.7	37.3	38.7	38.9	39.4	39.2
59	Residential	27.8	28.1	30.4	33.2	33.9	34.0	34.1	34.0
60	Residential	27.5	27.7	30.0	32.7	33.5	33.6	33.7	33.6
61	Residential	32.7	32.8	33.9	35.6	36.6	36.7	37.0	36.9
63	Residential	28.8	29.1	31.7	34.6	35.3	35.4	35.5	35.5
64	Residential	28.7	29.0	31.4	34.2	35.0	35.1	35.2	35.1
65	Residential	28.6	28.9	31.2	34.0	34.7	34.8	34.9	34.9
66	Residential	32.0	32.1	33.2	35.0	36.0	36.2	36.4	36.3
67	Residential	32.4	32.5	33.5	35.2	36.3	36.4	36.7	36.6
68	Residential	30.5	30.6	31.5	33.1	34.2	34.3	34.6	34.5
70	Residential	30.0	30.1	30.8	32.1	33.2	33.4	33.7	33.6
71	Residential	35.2	35.2	36.0	37.3	38.4	38.6	38.9	38.8
72	Residential	29.0	29.1	30.2	32.0	33.0	33.1	33.4	33.3
73	Derelict	28.5	28.6	30.0	32.1	33.0	33.1	33.3	33.2

Receptor ID	Description	Predicted Noise Level (dB L _{A90}) at Standardised 10m Height Wind Speeds (m/s)							
		3	4	5	6	7	8	9	10
74	Residential	26.9	27.1	28.9	31.4	32.2	32.3	32.4	32.4
75	Residential	27.5	27.6	28.8	30.8	31.7	31.9	32.1	32.0
76	Residential	27.4	27.5	28.7	30.6	31.6	31.7	32.0	31.9
77	Residential	27.2	27.4	29.2	31.5	32.4	32.5	32.6	32.6
78	Residential	27.1	27.2	28.5	30.5	31.4	31.5	31.8	31.7
79	Derelict	32.0	32.0	32.7	33.9	35.1	35.3	35.6	35.5
80	Residential	33.4	33.4	33.7	34.2	35.6	35.8	36.3	36.1
81	Residential	34.9	34.9	35.2	35.7	37.1	37.4	37.8	37.6
82	Residential	34.0	34.0	34.3	34.8	36.2	36.5	36.9	36.7
83	Residential	25.1	25.2	26.7	28.8	29.7	29.8	30.0	30.0
84	Residential	25.7	25.8	27.6	30.0	30.9	31.0	31.1	31.1
86	Residential	26.1	26.2	27.6	29.7	30.6	30.7	30.9	30.8
87	Residential	26.4	26.4	27.8	29.8	30.7	30.8	31.0	31.0
88	Residential	24.3	24.4	25.5	27.2	28.2	28.4	28.6	28.5
89	Residential	24.6	24.7	26.0	27.9	28.9	29.0	29.2	29.1
90	Residential	24.6	24.6	25.5	27.0	28.1	28.3	28.5	28.4
91	Residential	23.3	23.4	25.0	27.3	28.1	28.2	28.4	28.3
92	Residential	24.5	24.6	26.2	28.5	29.4	29.5	29.7	29.6
93	Residential	26.5	26.6	27.9	29.9	30.8	31.0	31.2	31.1
94	Residential	26.3	26.4	27.7	29.7	30.7	30.8	31.0	30.9
95	Residential	25.0	25.1	26.7	29.1	29.9	30.0	30.2	30.1
96	Residential	27.9	27.9	28.4	29.4	30.6	30.8	31.2	31.0
97	Residential	29.7	29.7	30.3	31.3	32.5	32.7	33.1	32.9
98	Residential	27.8	27.8	28.4	29.4	30.6	30.8	31.2	31.0
99	Residential	28.6	28.6	29.3	30.4	31.6	31.8	32.2	32.0
100	Residential	29.1	29.1	29.6	30.6	31.8	32.1	32.4	32.3
101	Residential	27.3	27.3	27.9	29.0	30.2	30.4	30.7	30.6
102	Residential	27.7	27.7	28.9	30.7	31.7	31.8	32.1	32.0
103	Residential	23.9	24.0	25.9	28.4	29.2	29.3	29.5	29.4
104	Residential	23.5	23.6	25.8	28.6	29.3	29.4	29.5	29.5
105	Residential	21.7	21.8	23.6	26.1	26.8	26.9	27.1	27.0
106	Residential	24.5	24.6	26.4	28.8	29.6	29.7	29.8	29.8
107	Residential	22.8	22.8	24.2	26.2	27.1	27.3	27.5	27.4
108	Residential	22.2	22.2	24.0	26.4	27.2	27.3	27.4	27.4

Receptor ID	Description	Predicted Noise Level (dB L _{A90}) at Standardised 10m Height Wind Speeds (m/s)							
		3	4	5	6	7	8	9	10
109	Residential	22.0	22.0	23.9	26.5	27.2	27.3	27.5	27.4
110	Residential	26.3	26.3	27.3	28.9	30.0	30.1	30.4	30.3
111	Residential	25.2	25.3	26.2	27.7	28.8	28.9	29.2	29.1
112	Residential	24.9	25.1	27.5	30.4	31.1	31.1	31.2	31.2
113	Residential	21.8	21.9	23.9	26.5	27.3	27.3	27.5	27.4
114	Residential	23.9	23.9	25.2	27.1	28.0	28.2	28.4	28.3
115	Residential	24.4	24.5	25.8	27.7	28.7	28.8	29.0	28.9
116	Residential	22.6	22.7	24.8	27.5	28.2	28.3	28.4	28.4
117	Farm buildings (commercial only)	22.1	22.2	24.1	26.6	27.4	27.5	27.7	27.6
118	Residential	24.4	24.6	26.5	29.1	29.8	29.9	30.1	30.0
119	Residential	21.5	21.6	23.4	25.9	26.7	26.8	26.9	26.9
120	Residential	21.8	21.8	23.7	26.1	26.9	27.0	27.2	27.1
121	Residential	21.6	21.6	23.1	25.3	26.2	26.3	26.5	26.4
122	Residential	25.7	25.8	27.0	28.8	29.8	29.9	30.2	30.1
123	Residential	25.5	25.6	26.7	28.6	29.5	29.7	29.9	29.8
124	Residential	26.4	26.5	28.1	30.4	31.3	31.4	31.6	31.5
125	Residential	27.3	27.4	28.5	30.3	31.3	31.5	31.7	31.6
126	Residential	22.9	23.0	25.2	27.9	28.7	28.7	28.9	28.8
127	Residential	23.3	23.4	25.6	28.3	29.1	29.1	29.3	29.2
128	Residential	22.2	22.3	24.2	26.7	27.5	27.6	27.7	27.7
129	Residential	22.0	22.1	24.0	26.5	27.3	27.4	27.5	27.4
130	Farm buildings (commercial only)	22.4	22.5	24.6	27.3	28.1	28.1	28.3	28.2
131	Residential	25.6	25.6	26.5	28.0	29.1	29.2	29.5	29.4
132	Residential	23.1	23.2	25.2	27.9	28.6	28.7	28.8	28.8
133	Residential	25.3	25.5	27.9	30.7	31.4	31.5	31.6	31.6
134	Residential	30.2	30.2	31.1	32.5	33.6	33.8	34.1	34.0
135	Residential	29.7	29.7	30.4	31.6	32.8	33.0	33.3	33.2
137	Residential	24.5	24.6	25.5	27.2	28.2	28.4	28.6	28.5
138	Residential (house not built yet)	22.9	23.0	25.1	27.9	28.6	28.7	28.8	28.8
139	Residential	33.8	33.8	34.1	34.7	36.1	36.3	36.8	36.6
140	Residential	27.4	27.5	28.6	30.3	31.4	31.5	31.8	31.7
141	Residential	23.5	23.6	25.5	28.1	28.8	28.9	29.1	29.0
142	Residential	25.2	25.2	26.4	28.2	29.2	29.4	29.6	29.5
143	Residential	34.1	34.1	34.4	34.9	36.3	36.6	37.0	36.8

Receptor ID	Description	Predicted Noise Level (dB L _{A90}) at Standardised 10m Height Wind Speeds (m/s)							
		3	4	5	6	7	8	9	10
146	Derelict	23.4	23.5	25.6	28.3	29.0	29.1	29.2	29.2
147	Derelict	23.3	23.4	25.4	28.1	28.8	28.9	29.0	29.0
156	Derelict	22.7	22.8	24.9	27.6	28.3	28.4	28.5	28.5
157	No house here yet	21.5	21.6	23.6	26.2	27.0	27.0	27.2	27.1
158	Residential	27.8	28.2	31.1	34.3	34.9	35.0	35.0	35.0
159	Residential	26.4	26.7	29.2	32.2	32.9	32.9	33.0	33.0
160	Residential (New house)	32.0	32.0	32.4	33.3	34.6	34.8	35.2	35.0
161	Residential	32.7	32.7	32.9	33.3	34.7	35.0	35.5	35.3
162	Residential (Planning ref 194909)	36.0	36.0	36.3	37.0	38.4	38.6	39.0	38.8
163	Residential	32.3	32.3	32.5	32.8	34.3	34.5	35.0	34.8
164	Residential	31.1	31.1	31.2	31.6	33.1	33.3	33.8	33.6
165	Residential	32.3	32.3	32.5	32.8	34.3	34.6	35.0	34.8
166	Residential	32.4	32.4	32.6	32.9	34.4	34.7	35.1	34.9
167	Residential	23.6	23.6	24.9	26.8	27.7	27.9	28.1	28.0
168	Residential	26.8	26.8	27.4	28.5	29.7	29.9	30.3	30.1
169	Residential	26.8	26.8	27.4	28.5	29.7	29.9	30.3	30.1
170	Residential	26.2	26.2	26.8	27.8	29.1	29.3	29.6	29.5
171	Residential	26.1	26.1	26.7	27.8	29.0	29.2	29.6	29.4
172	Residential	25.8	25.9	27.5	29.8	30.7	30.8	31.0	30.9
173	Residential	24.2	24.3	26.3	28.8	29.6	29.7	29.8	29.8
174	Residential	27.9	28.0	29.2	31.1	32.0	32.1	32.4	32.3
175	Residential	30.2	30.2	30.7	31.7	32.9	33.1	33.5	33.4

