FULLABROOK WIND FARM

2015 NOISE COMPLIANCE ASSESSMENT

REPORT HM: 2948_R1_EXT4

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1. INTRODUCTION AND BACKGROUND

1.1 This report describes the operational noise measurements carried out in 2015 and subsequent noise assessment of the operational Fullabrook Wind Farm, located to the north of Barnstaple, North Devon.

1.2 Hayes McKenzie Partnership Ltd. (HMPL) were originally commissioned to carry out noise monitoring in 2012 at 12 residential properties around the Fullabrook wind farm site as required by the Planning Consent (Department for Business, Enterprise and Regularity Reform reference no. GDBC/003/0024C) for the site. Results of this noise monitoring campaign are presented in the report, *Post Construction Noise Compliance Assessment* reference no. HM:2647/R2 dated 28th September 2012. The 2012 noise data was analysed according to the protocol agreed with North Devon Council (NDC) and the results of the analysis showed that wind farm noise levels were below the specified noise limits at 8 of the 12 measurement locations. Of the remaining four measurement locations, results for the three locations that are not financially involved with the wind farm showed noise levels above the noise limit by a maximum of 0.5 dB for a 1 m/s range of wind speed. Additional mitigation was specified to enable the wind farm to operate within the noise limits specified in the Planning Conditions, which was implemented shortly after submission of the September 2012 report.

1.3 The 2012 measurements included audio measurements at four residential properties, and the results showed there was tonal noise from the wind turbines that would result in a tonal penalty according to the Planning Conditions. Subsequently a setting was changed in the turbine operations to reduce the tonal noise at lower wind speeds for all wind turbines on the site.

1.4 Following the 2012 noise survey, it was agreed with NDC to carry out further noise measurements at eight residential properties in 2013/2014, to ascertain whether the wind farm, with the updated mitigation strategy was operating within its noise limits. Audio measurements were carried out at each location such that the levels of tonal noise from the wind farm could be evaluated and assessed according to the requirements of the Planning Conditions. The results submitted to NDC by way of report *2014 Noise Compliance Assessment* reference no. HM:2761/R1 dated 28th August 2014, and its addendum *2014 Noise Compliance Assessment* Addendum reference no. HM:2761/R2 dated 1st December 2014. The December

2014 report identified potential exceedances of the noise limits at seven of the eight locations assessed mainly due to the tonal penalties added to the average measured noise levels. Subsequently a detailed additional mitigation strategy was required to reduce the noise output of the wind farm. The updated mitigation strategy was implemented on site in January 2015, and the settings for each turbine were verified by HMPL to ensure that they corresponded with the mitigation detailed in the December 2014 report.

1.5 This report presents an assessment of measured noise levels at the seven locations where potential exceedances of the noise limits were identified in 2014. Measurements were carried out over an extended period in 2015 to ensure that sufficient data over a large range of wind speed and direction conditions were encountered.

1.6 All measurement locations (including the specific siting of the equipment at each location) were agreed with NDC and the installation of the equipment was attended by NDC's acoustic expert, and the measurement equipment was only removed with the prior agreement of NDC.

1.7 The noise data has been analysed according to the protocol agreed with the Council included in Appendix A), and the results have been compared against the noise limits set out in the Planning Conditions for the site.

2. PLANNING CONDITIONS AND NOISE LIMITS

2.1 Planning condition 20 states that, for properties that are not financially involved with the wind farm;

> *'The levels of noise resulting from the combined effects of the wind turbines on the development site when corrected in accordance with Notes A and B below shall not exceed the following limits at any dwelling existing at the date of this permission:*
>
> ***Between the hours 2300 – 0700***
> *The greater of 43dB $L_{A90,10min}$ or 5dB L_{A90} above the established nighttime background noise level at that property.*

At all other times

The greater of 40dB $L_{A90,10min}$ or 5dB L_{A90} above the established quiet daytime background noise level at that property.'

Except that at any dwelling occupied by persons having a financial involvement with the development the levels of noise shall not exceed the following

Between the hours 2300 - 0700

The greater of 45dB $L_{A90,10min}$ or 5dB L_{A90} above the established nighttime background noise level at that property.

At all other times

The greater of 45dB $L_{A90,10min}$ or 5dB L_{A90} above the established quiet daytime background noise level at that property

2.2 The condition then goes on to detail the background noise levels for the purposes of compliance at 13 properties in the vicinity of the wind farm as follows:

Table 1 – Background Noise Levels from Condition 20

Location		10 m height wind speed								
		3	4	5	6	7	8	9	10	11
Fullabrook	daytime	33	33	34	34	35	36	37	38	39
	night-time	33	33	34	34	35	36	37	38	39
Halsinger	daytime	30	32	33	35	36	37	38	38	39
	night-time	30	32	34	35	36	37	37	37	37
Crackaway	daytime	32	33	35	36	36	37	37	38	40
	night-time	33	35	36	37	37	37	37	37	38
Burland Farm	daytime	34	35	36	36	36	37	38	39	41
	night-time	35	36	37	38	38	38	38	38	40
South Burland	daytime	38	38	38	37	37	38	40	40	40
	night-time	35	36	36	37	37	37	38	39	41
Lower Metcombe	daytime	35	36	36	36	36	37	39	40	40
	night-time	33	35	36	36	37	37	37	37	38
Ash Barton	daytime	32	34	35	37	38	38	39	40	39
	night-time	32	34	35	36	37	37	38	38	38
Patsford	daytime	35	35	35	35	36	38	40	40	40
	night-time	33	34	35	36	36	37	37	37	37
Beara Charter	daytime	34	35	36	36	37	38	38	39	39
	night-time	34	35	36	36	37	38	38	39	39
Luscott Barton	daytime	33	35	36	36	38	39	40	40	40
	night-time	33	35	36	36	37	37	37	37	38

Location		10 m height wind speed								
		3	4	5	6	7	8	9	10	11
Northleigh	daytime	31	32	34	35	35	36	36	36	37
	night-time	30	32	33	34	35	35	36	36	37
Pippacott	daytime	36	36	36	37	37	37	37	38	37
	night-time	35	35	35	35	36	37	38	38	38
West Stowford Barton	daytime	35	35	35	36	39	40	40	40	40
	night-time	34	35	36	37	37	38	38	38	38

2.3 It further states that:

> *'Where there is no background noise data for any specific property then the background noise data shall be taken from the nearest property for which such data is available.'*

2.4 Condition 21 requires a methodology to be agreed with the local planning authority for monitoring noise levels. This methodology is detailed in Hayes McKenzie document *Fullabrook Wind Farm – Noise Compliance Measurement Protocol*, dated 2nd of June 2011 (included at Appendix A).

Tonal Noise

2.5 In respect of tonal noise, Note B to the noise conditions states that:

> *For the purpose of compliance with conditions 20 to 23, tonal noise shall be assessed in accordance with the procedures in Section 2 (Step 6) on Pages 103-104 and Section 2.1 on Pages 104-109 of "The Assessment and Rating of Noise from Wind Farms, ETSU-R-97"; prepared by the Energy Technology Support Unit for the Department of Trade and Industry. The appropriate penalty for tonal noise shall be added to the measured noise levels for the purposes of comparison with the noise limits in condition 20 above.*

Noise Limits

2.6 The relevant noise limits for each property derived from the background noise levels presented at Table 1 are detailed below at Table 2. The background noise measurements were

correlated with measured 10 m height wind speeds, and as such the noise limits were set for measured 10 m height wind speeds.

Table 2 – Noise Limits Derived from Condition 20

Property	Measured 10m-height W/S	3	4	5	6	7	8	9	10	11
Fullabrook Farm*	Daytime Noise Limit	45	45	45	45	45	45	45	45	45
	Night Noise Limit	45	45	45	45	45	45	45	45	45
Fullabrook Barton	Daytime Noise Limit	40	40	40	40	40	41	42	43	44
	Night Noise Limit	43	43	43	43	43	43	43	43	44
Halsinger	Daytime Noise Limit	40	40	40	40	41	42	43	43	44
	Night Noise Limit	43	43	43	43	43	43	43	43	43
Crackaway	Daytime Noise Limit	40	40	40	41	41	42	42	43	45
	Night Noise Limit	43	43	43	43	43	43	43	43	43
Burland Farm*	Daytime Noise Limit	45	45	45	45	45	45	45	45	46
	Night Noise Limit	45	45	45	45	45	45	45	45	45
South Burland	Daytime Noise Limit	43	43	43	42	42	43	45	45	45
	Night Noise Limit	43	43	43	43	43	43	43	44	46
Metcombe	Daytime Noise Limit	40	41	41	41	41	42	44	45	45
	Night Noise Limit	43	43	43	43	43	43	43	43	43
Ash Barton	Daytime Noise Limit	40	40	40	42	43	43	44	45	44
	Night Noise Limit	43	43	43	43	43	43	43	43	43
Patsford	Daytime Noise Limit	40	40	40	40	41	43	45	45	45
	Night Noise Limit	43	43	43	43	43	43	43	43	43
Beara Charter	Daytime Noise Limit	40	40	41	41	42	43	43	44	44
	Night Noise Limit	43	43	43	43	43	43	43	44	44
Luscott Barton	Daytime Noise Limit	40	40	41	41	43	44	45	45	45
	Night Noise Limit	43	43	43	43	43	43	43	43	43
Northleigh	Daytime Noise Limit	40	40	40	40	40	41	41	41	42
	Night Noise Limit	43	43	43	43	43	43	43	43	43
Pippacott	Daytime Noise Limit	41	41	41	42	42	42	42	43	42
	Night Noise Limit	43	43	43	43	43	43	43	43	43
West Stoford Barton	Daytime Noise Limit	40	40	40	41	44	45	45	45	45
	Night Noise Limit	43	43	43	43	43	43	43	43	43

***** Denotes locations with financial involvement qualifying for the higher financial involved noise limits.

3. NOISE MONITORING

3.1 The seven locations where additional measurements were carried out, and exact positioning of the noise monitoring equipment, were agreed with North Devon Council (NDC) and the Council's noise consultants RD Associates. Noise monitoring equipment was only removed from the measurement locations once agreement had been reached with the NDC that enough noise data had been collected.

Measurement Locations

3.2 The noise measurement locations are shown below at Figure 1 and Table 3. The equipment was installed on 5th March 2015 and collected on 2nd October 2015, resulting in a duration of approximately 30 weeks. The red crosses show the turbine locations, and the blue circles show the measurement locations.

Figure 1 – Noise Measurement Locations and Wind Farm Layout

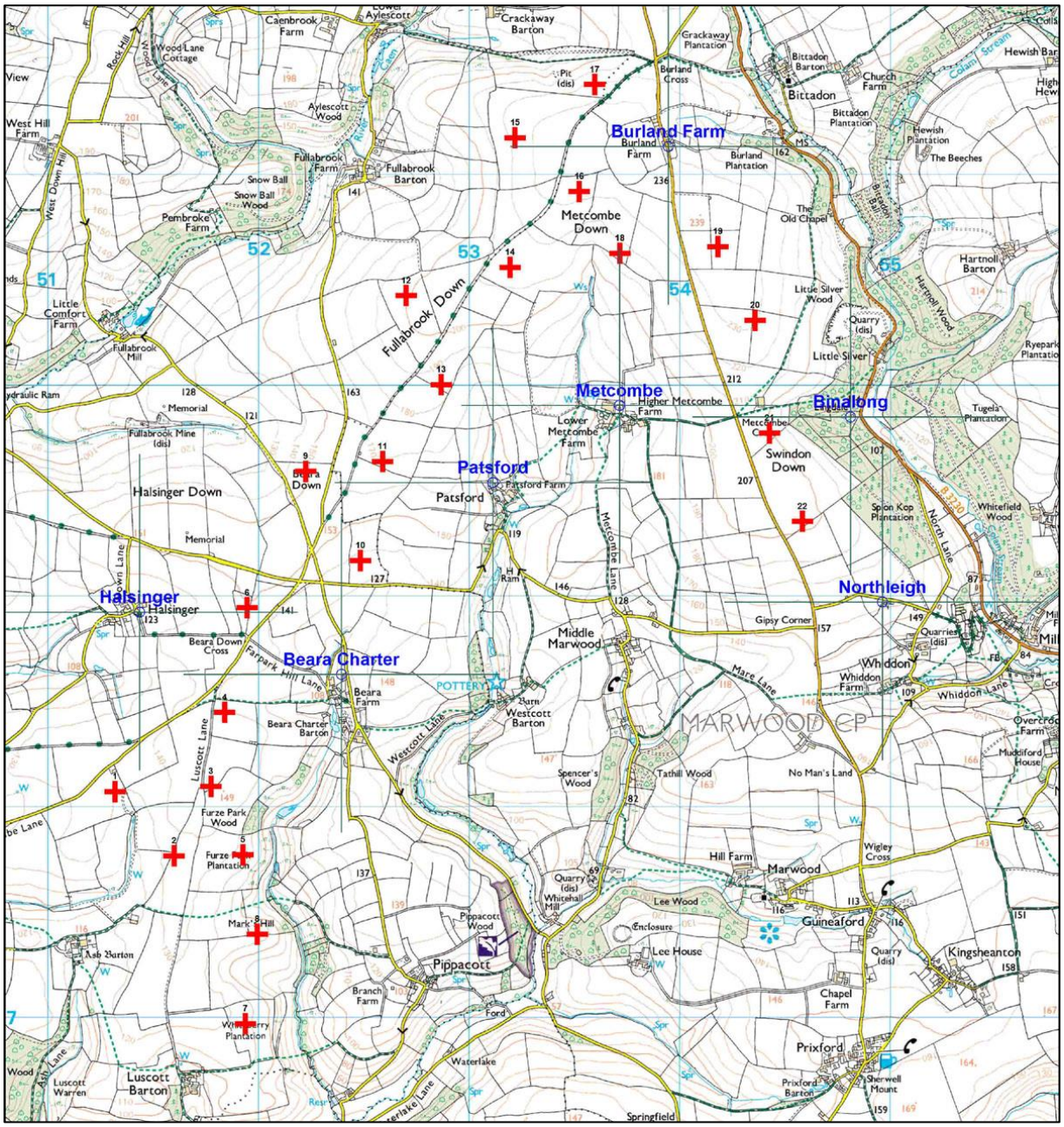


Table 3 – Noise Measurement Equipment Locations

Location ID	Location Name	Easting	Northing
1	Burland Farm	253925	141151
2	Binalong	254786	139849
3	Halsinger	251426	138896
4	Beara	252398	138451
5	Metcombe	253788	139862
6	Northleigh	254977	138974
7	Patsford	253143	139540

3.3 Each measurement location was visited approximately every 3 weeks, with the data downloaded and the equipment calibration checked and adjusted as necessary.

Noise Monitoring Equipment

3.4 Noise measurements were carried out using Rion NL-52 sound level meters. The microphones were fitted with a 45 mm radius foam ball windshield surrounded by a secondary windshield of 40 mm thickness (based on recommended design specifications within ETSU W/13/00386/REP, *Noise Measurements in Windy Conditions)* and mounted on a tripod at a height of approximately 1.2 metres. All equipment was within its relevant laboratory calibration period and field calibration was carried out at installation and at each subsequent visit to site.

3.5 The noise monitoring equipment was set up to record the $L_{Aeq,\ 10\text{-minute}}$ and $L_{A90,\ 10\text{-minute}}$ noise levels and 2-minutes of audio at the beginning of each 10-minute period, with a sampling rate of 24 kHz with a bit rate of 24 bits per sample. The noise, rain, and wind data were synchronized to the same time base.

3.6 During the course of the noise measurements, verification measurements were undertaken by RD Associates by setting up noise monitoring equipment adjacent to the HMPL equipment. HMPL subsequently supplied the raw noise and rain data for the corresponding periods. It is understood that all measurements correlated very well and within normal tolerances.

Rainfall

3.7 Rainfall was measured at Burland Farm and Halsinger for the duration of the noise measurements, using high sensitivity Pluvimate rain gauges. This data is considered

representative of rainfall at all measurement locations. Periods where rainfall was detected at either of the measurement locations have been excluded from the analysis at all locations.

Wind Data

3.8 Wind speed and direction data was taken from the on-site meteorological mast, which has anemometers installed at heights of 65, 63, 50, 33, and 10 m and wind vanes at heights of 63 and 33 m. The instrumentation was checked immediately prior to the commencement of the noise measurements to ensure that all equipment was operating correctly.

3.9 The planning condition noise limits are set for measured 10 m height wind speeds and therefore the measured 10 m height wind speed was used. The 63 m height wind direction best represents the wind direction as 'seen' by the wind turbines and was therefore used. It should be noted that the 2014 data analysis used the 33 m height wind direction data as data from the 63 m height vane was not available.

Measurement of Background Noise

3.10 In order to enable a background correction to be applied to the measured noise levels without having to carry out significant periods of wind farm shut down during the 2015 measurements, the background noise data from the 2012 compliance measurements was added to the measured 2014 shut down data, as agreed with NDC. Furthermore turbine shut-downs were carried out at higher wind speeds during the 2015 survey where no data had been measured before.

3.11 It should be noted that the majority of the evening shut downs were carried out between 2200-2300 hours which usually represents the quietest portion of the daytime and evening period, and therefore any correction applied to the evening measured noise levels is considered to be conservative.

Audio Recordings for Tonal Analysis

3.12 Audio recordings were carried out at each of the seven properties to enable quantification of the tonal noise from the wind farm. The audio measurements consisted of 2-minutes of audio recording at the start of every 10-minute measurement period.

4. ANALYSIS OF MEASURED NOISE DATA

Background Noise Data

4.1 As discussed in paragraphs 3.10 and 3.11 the background noise data measured during the 2015 measurements has been combined with the previous measured background noise data to enable the correction of the measured operational noise levels for existing background noise.

4.2 The combined background noise data is shown in Appendix B for each measurement locations and the background noise data collected in each sector during the evening and night periods are shown together with the background noise which is averaged across all sectors.

4.3 To ensure consistency in the data analysis, and with the analysis of operational noise data, no manual filtering of the data has been applied, and a 3rd order polynomial regression line has been plotted though each of the sets of background noise data.

Broadband[1] Noise Analysis

4.4 The results of the noise measurements at each location were filtered to include only periods where all turbines were operating normally (i.e. without fault); to exclude periods where rainfall was measured; to include only 10 m height wind speeds in the range 2.5 to 11.5 m/s; and to exclude periods between 0400-1800 hours where the influence of birdsong and vehicle activity on local roads may have affected the measured noise data.

[1] Broadband refers here to the 10 minute noise levels collected over the survey; audio recordings and tonal assessment are considered separately.

4.5 Data collected between 1800-2300 hours was used for assessment against the daytime noise limits to minimise the influence of sources of noise not associated with the wind farm.

4.6 A series of eight noise assessment charts were produced for each measurement location covering each of the 90° wind direction sectors for both the evening and night hour periods. The sectors are defined as follows:

Table 4 – Noise Data Analysis Wind Sector Definition

Wind Sector	Angles encompassed, defined in a clockwise direction (° relative to north)
Sector 1	0 - 90
Sector 2	90 - 180
Sector 3	180 - 270
Sector 4	270 - 0

Tonal Noise Analysis

4.7 Each 2-minute audio sample corresponding with a period of full wind farm operation (i.e. all wind turbines operating as required in the mitigation strategy) was analysed for tones according to the methodology presented in ETSU-R-97 at pages 103-109, as required by the planning conditions (described at section 2).

4.8 A series of eight tonal noise assessment charts were produced for each measurement location covering each of the 90° wind direction sectors for both the evening and night hour periods. The data was filtered in the same way as for the measured L_{A90} noise data as described above.

4.9 It should be noted that some samples are potentially affected by noise sources other than wind farm noise (extraneous sources) but due to the large amount of data, the audio data was not listened to and manually filtered and all data (subject to the exclusions detailed above) and is included in the analysis and may therefore over-estimate the average wind farm tonal noise levels.

4.10 For each of the eight tonal assessment charts per measurement location, the calculated tonal audibility has been plotted against the measured 10 m height wind speed. Two linear regression lines have been plotted though the tonal audibility data from 2.5 – 7 m/s and from

7 – 11.5 m/s, such that the tonal penalty can be calculated for each integer wind speed[2]. At 7 m/s the highest tonal penalty derived from the two linear regressions has been applied. This agrees well with the tonal analysis methodology specified in ETSU-R-97 (as referred to in the Planning Conditions) which requires the tonal analysis to be carried out on a 4 m/s wide wind speed range, and the procedure was agreed with NDC.

Noise Assessment Charts

4.11 The results of the broadband and tonal noise assessments are presented as noise assessment charts showing the measured broadband noise levels with the calculated tonal penalties included in the wind farm rating level. A series of eight noise assessment charts have been produced for each measurement location with the following information detailed on each chart:

- Measured operational noise data
- Derived prevailing measured noise levels (regression line through the measured data)
- Average background noise levels
- Relevant noise limit
- Wind farm rating level[3]

4.12 Additionally where the wind farm rating level exceeds the noise limit, or the derived prevailing noise levels indicate potential exceedances at higher wind speeds, the predicted noise level (including the 2015 measured tonal penalty) is also shown on the noise assessment charts. This enables the expected noise levels to be extrapolated to higher wind speeds where there is not enough data. It also helps to identify where higher measured noise levels are likely to have been caused by elevated background noise levels rather than by the wind farm. The predicted noise levels are calculated based on the mitigation strategy presented in the report HM:2761/R2 dated 1st December 2014 carried out in 15° increments and with the highest predicted noise levels plotted in each 90° sector. It should be noted that this approach

[2] It should be noted that the tonal assessment charts also show the linear regression line though all of the data from 2.5-11.5 m/s as well as the 2 linear regression lines through 2.5-7 and 7-11.5 m/s.

[3] The wind farm rating level is the derived prevailing measured level (at each integer wind speed) corrected for background noise and with the calculated tonal penalty added.

presents the worst case predicted levels expected in each sector, and average levels for the sector are likely to be lower. By including the measured tonal penalty in the predicted noise levels it enables the predictions and wind farm rating levels to be compared on a like-for-like basis.

Relevant Noise Assessment Sectors

4.13 As described above, eight noise assessment charts have been produced for each noise measurement location, however, it should be noted that not all of the sectors are necessarily critical to all of the noise measurement locations as there are some sectors where the measurement location cannot be downwind of any of the nearby turbines. The 2014 compliance report defined the critical sectors for each location, but the results here are discussed for each sector and the 'non-critical' sectors have not been excluded.

5. RESULTS

Tonal Analysis Results

5.1 The results of the tonal analysis are shown at Appendix C which includes charts showing the calculated tonal audibility plotted against measured wind speed together with the derived linear regression line through the tonal audibility data for each time period for each property for each of the four 90° sectors. The derived tonal penalties are also shown at Table 5 to Table 8 in Appendix C.

5.2 Also shown in the tables below each chart are the derived tonal penalties, including each of the tonal penalties calculated from a linear regression line through all of the data; using 'bin' analysis; an average for 2.5-7 m/s and 7-11.5 m/s; and an overall average through all the derived tonal audibilities in the sector. The results presented in Appendix C show that the double regression methodology (of plotting a linear regression through the tonal audibility of the 2.5-7 m/s and 7-11.5 m/s data) is an appropriate method of calculating the tonal penalties across all locations and sectors as it generally fits well with the measured data. This method is also in line with ESTU-R-97 as much as possible, in so far as the ETSU-R-97 methodology requires derivation of the tonal audibility over a 4 m/s wide wind speed bin, centred on the 'critical wind speed'. It should be noted, however, that in this case no 'critical wind speed' had

been defined as compliance is being assessed over the whole wind speed range to which the limits apply.

Noise Assessment Results

5.3 The results of the noise measurements are graphically shown at Appendix D, detailing the results of the noise assessment for each measurement location. Noise assessment charts are presented for each sector for the night and evening time periods, and show the data detailed at paragraph 4.11.

5.4 It should be noted that the shut-down (background) noise levels have not been filtered for wind direction. Where the wind farm noise level has been calculated based on shut down data from other wind direction sectors, there is more uncertainty associated with the results than where shut down data is available for the relevant sector as it is clear that that background noise levels vary with wind direction as well as wind speed at some locations. Similarly, where there are fewer than ten operational or shut-down data points in a wind speed bin, the wind farm rating levels are not presented as there is insufficient data to reliably extrapolate the results.

5.5 The results are also summarised in tabular form at Table 9 to Table 22 in Appendix D, which shows the margin between the wind farm rating level and the noise limit. Where there are fewer than 10 data points in a wind speed bin, the number of data points is highlighted in yellow, and where the wind farm rating level (calculated wind farm noise level plus tonal penalty) is above the noise limit the exceedance is highlighted in red. It should be noted that the additional of the tonal penalties and margins between the wind farm rating level and the noise limits are calculated prior to rounding to one decimal place, and therefore there may be some rounding differences. It should also be noted that the noise limits are presented to the nearest one decibel, and that the results would normally also be rounded to the nearest decibel, but for consistency, and because the background corrections are carried out prior to rounding, the results are presented to one decimal place. This should not be taken as implying that the accuracy of the results 0.1 dB.

6. RESULTS DISCUSSION

6.1 The noise monitoring equipment was removed from site with the agreement of NDC's acoustic consultant after 30 weeks. There were some wind direction sectors which are rarely encountered on this site and therefore it will always be very difficult to ensure full data sets in each of the sectors for each time period. It was, however, judged that an appropriate duration of measurements has been undertaken with sufficient data to ascertain whether the wind farm is operating within its noise limits.

6.2 The results of the noise assessment show that the wind farm rating noise levels meet the relevant noise limits for each sector, with the exception of the following results where initial analysis of the results indicated potential wind farm rating noise levels above the limits at a limited range of wind speeds and direction sectors as detailed below. As discussed in the following paragraphs, further investigation of the data suggests that these potential breaches of the limits are not caused by the wind farm.

- Burland Farm, Sector 3, Night and Evening
- Binalong, Sector 1 and 2, Evening
- Halsinger, Sector 1, Night and Evening
- Metcombe, Sector 1, Evening
- Northleigh, Sector 1, Night and Evening; Sector 3, Evening.

6.3 Each of the results identified above, where the wind farm rating level was shown to be above the derived noise limit, has been investigated in more detail, with detailed summaries provided in Appendix E. Further investigation of the results indicates that for each of the periods and sectors, where the initial analysis showed wind farm rating levels to be above the noise limits, these exceedances are highly likely to be the result of background noise influencing the measured levels, and are therefore most unlikely to indicate breaches of the noise limits.

6.4 The results indicate with a high degree of certainty that the wind farm is compliant with its noise limits at all of the measurement locations.

7. CONCLUSIONS

7.1 Noise measurements have been carried out at for a period of 30 weeks at seven residential locations around the Fullabrook Wind Farm to ascertain whether the site is operating within the requirements of the Planning Conditions relating to noise after an updated mitigation strategy was implemented in January 2015.

7.2 Audio data was collected as part of the measurement campaign such that the levels of tonal noise from the wind farm could be evaluated for each measurement location as required by the Planning Conditions.

7.3 The average measured operational noise levels were calculated in 90° sectors for each property for the evening and night hour periods. The levels were subsequently corrected for background noise, and the tonal penalties calculated from the audio data were added to calculate the wind farm rating levels.

7.4 The calculated wind farm rating levels were compared with the relevant noise limits and the results indicate with a high degree of certainty that the wind farm is operating within its noise limits.

Appendix A

Noise Compliance Measurement Protocol

FULLABROOK WIND FARM
NOISE COMPLIANCE MEASUREMENT PROTOCOL
Rob Shepherd, Hayes McKenzie Partnership Ltd
HM : 2195_6_RES : 2nd June 2011

1. The planning consent issued by the Secretary of State for Fullabrook Wind Farm contains four Planning Conditions covering noise issues (nos. 20 -23). This document describes the noise compliance assessment methodology required by condition 21, which states:

> *No wind turbine shall be operated on the site until a scheme has been submitted to and agreed with the local planning authority for monitoring noise levels at up to five selected residential locations (or at representative locations close to those properties, to be agreed with the local planning authority) during six months following connection to the electricity grid and full operation of all the turbines on the site. The duration of such monitoring shall be sufficient to provide comprehensive information on noise levels in a representative range of wind speeds and wind directions with all wind turbines operating. Monitoring shall be carried out in accordance with the approved monitoring scheme and the results provided to the local planning authority within four months of completion of the scheme.*

Noise Measurement Procedure

2. Values of the $L_{A90,10\text{-minute}}$ noise statistic will be measured at 5 residential properties to be agreed with the Environmental Health department of North Devon Council prior to the installation of the noise monitoring equipment. Measurements will be carried out using sound level meters of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1 quality (or the equivalent UK adopted standard in force at the time of the measurements) set up to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). They will be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the equivalent UK adopted standard in force at the time of the measurements).

3. The microphone will be mounted at 1.2 - 1.5 metres above ground level, fitted with a two-layer windshield or suitable equivalent, and placed outside the residential property. Measurements should be made in "free field" conditions. To achieve this, the microphone should be placed at least 3.5 metres away from the building facade or any reflecting surface except the ground at the approved measurement location.

4. Measurement of tonal noise from the wind farm will not be carried out unless specifically requested by the Local Planning Authority following a complaint about such noise.

Wind Speed Measurements

5. Any noise compliance measurements made in shall be correlated with 10m-height wind speeds measured on-site, or wind speed measurements carried out at 2 heights such that the 10m height wind speed can be accurately calculated, as required by Condition 23.

6. If the 10m-height wind speed is to be calculated from two heights (e.g. 65m and 25m as detailed at condition 23) rather than measured at 10m-height, then the 10-minute wind shear exponent between the two heights will be used to calculate the 10m-height wind speed.

7. The $L_{A90,10\text{-minute}}$ measurements will be synchronised with measurements of the 10-minute arithmetic mean wind speed logged at the on-site anemometry mast.

Survey Length

8. Noise monitoring equipment will be installed for an initial period of 2 weeks to monitor levels of noise with the turbines operating normally. The measured on-site wind speed and direction will be monitored during the survey to ensure that sufficient data is captured, and it will be ensured that there are at least 5, 10-minute data points, in each 10m-height wind speed bin from 3-12 m/s for each property for downwind propagation as defined at paragraph 9.

Data Analysis

9. The measured noise data will be filtered to include only that for down-wind propagation from the site towards the monitoring location unless otherwise agreed with the Local Planning Authority. Downwind propagation will be taken to mean excluding data corresponding to any wind direction which is more than 45 degrees from every line from each of the turbines and the measurement position. Any data corresponding to periods of rainfall will also be excluded together with periods when turbine operation was not deemed to be normal as evidenced by rotational speed, power generation and wind speed data logged by the turbines.

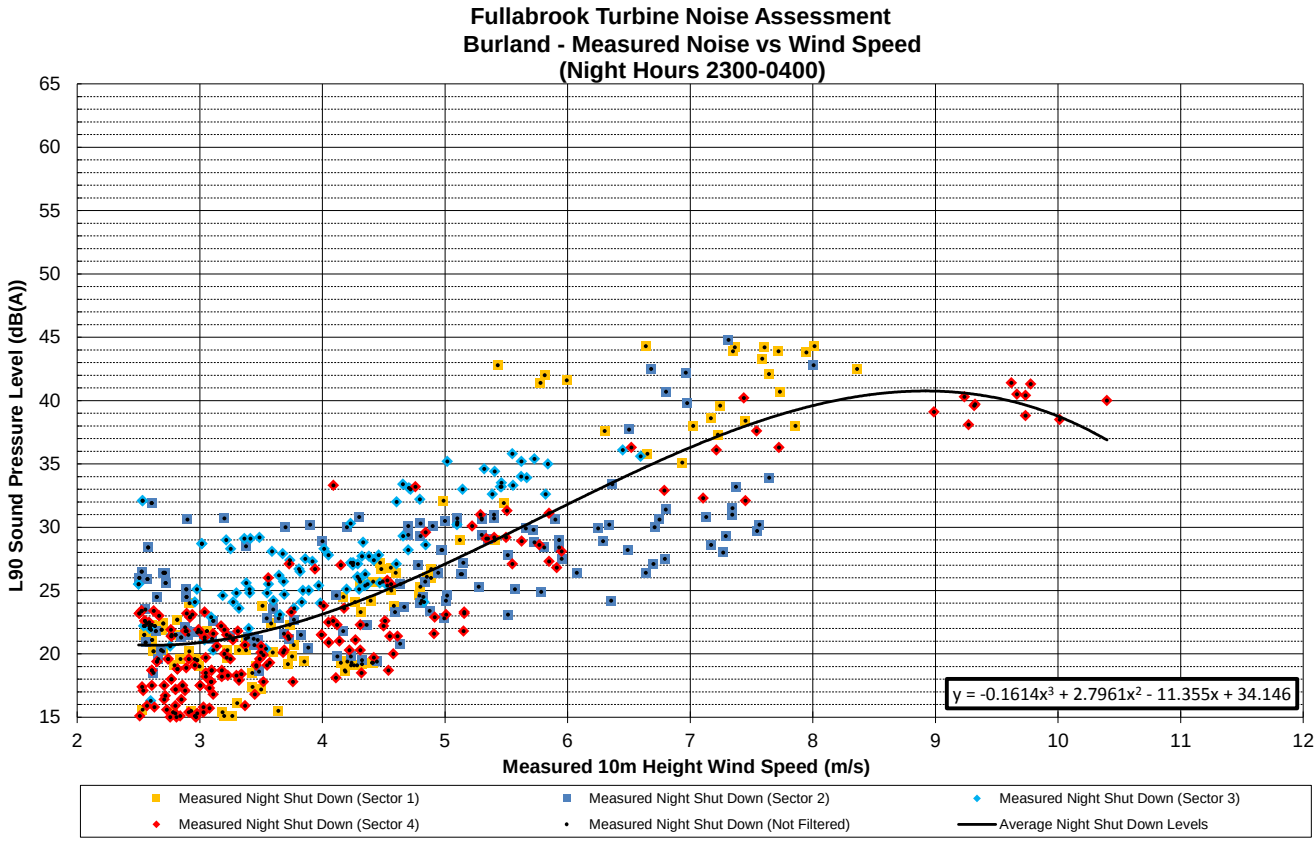
10. The noise data for each interval period will then be plotted against the equivalent 10 metre height wind speed, derived as described in Paragraphs 5 and 6 (above). A best fit curve will be plotted through the data points to provide the measured noise level at integer wind speeds over the wind speed range for which data is available which can be compared with the noise limits specified in Planning Condition 20.

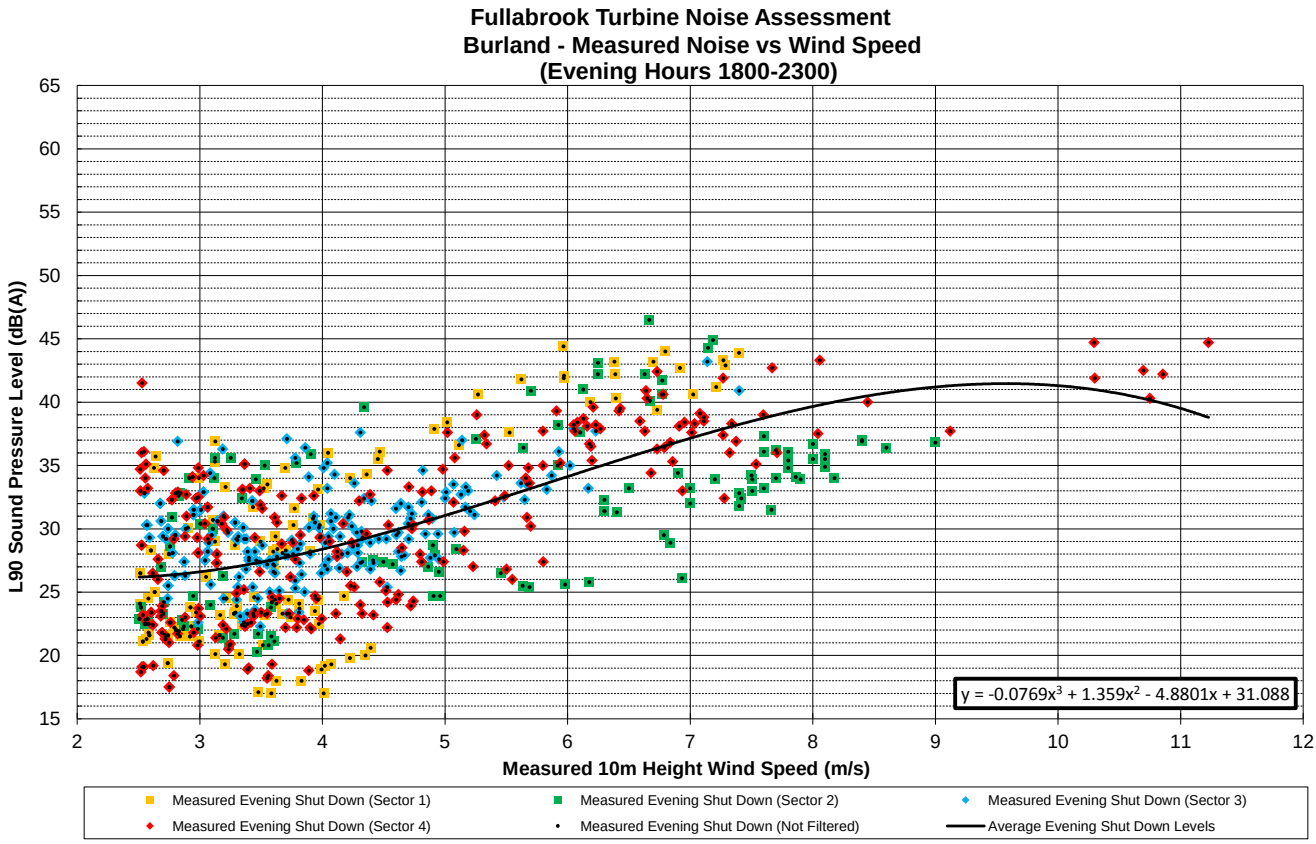
11. If the results from the analysis described at Paragraph 10 show that the noise level is above the limit, further measurements will be carried out to include turbine shut down periods, to correct for the influence of background noise, with the background noise subtracted from the measured noise using the formula on page 103 of ETSU-R-97 *The Assessment and Rating of Noise from Wind Farms*.

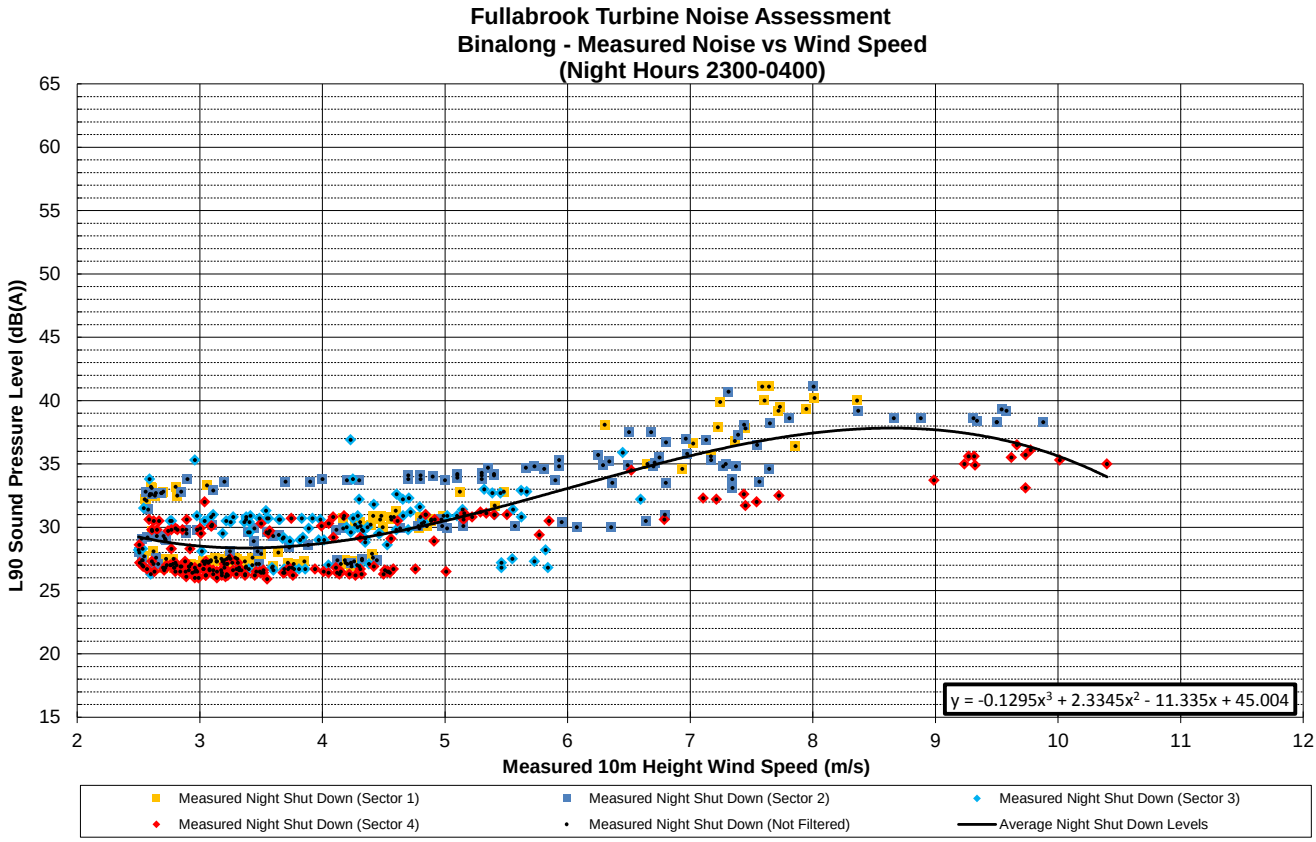
12. A report on the results of the measurements will be supplied to the Local Planning Authority within 4 months of the completion of the measurements as required by condition 20.

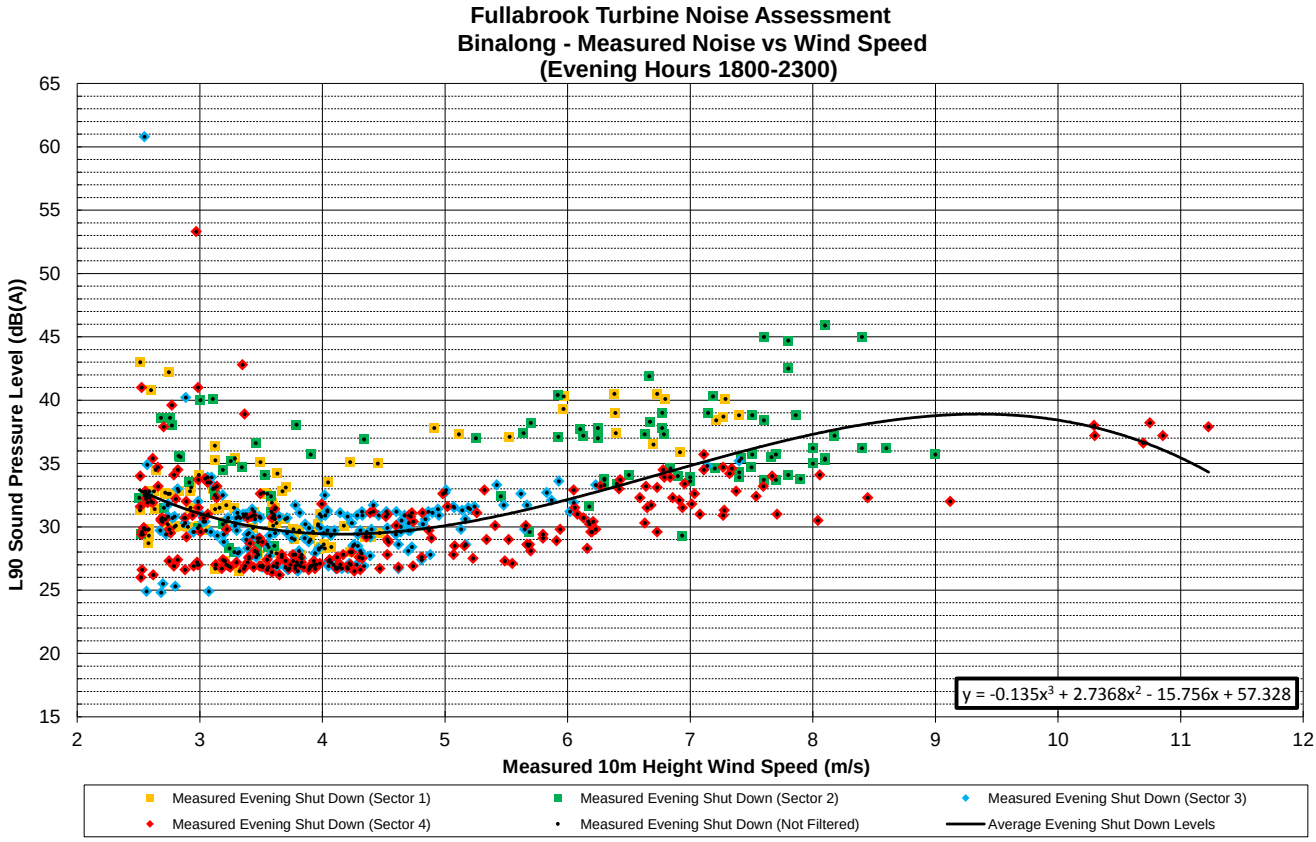
Appendix B

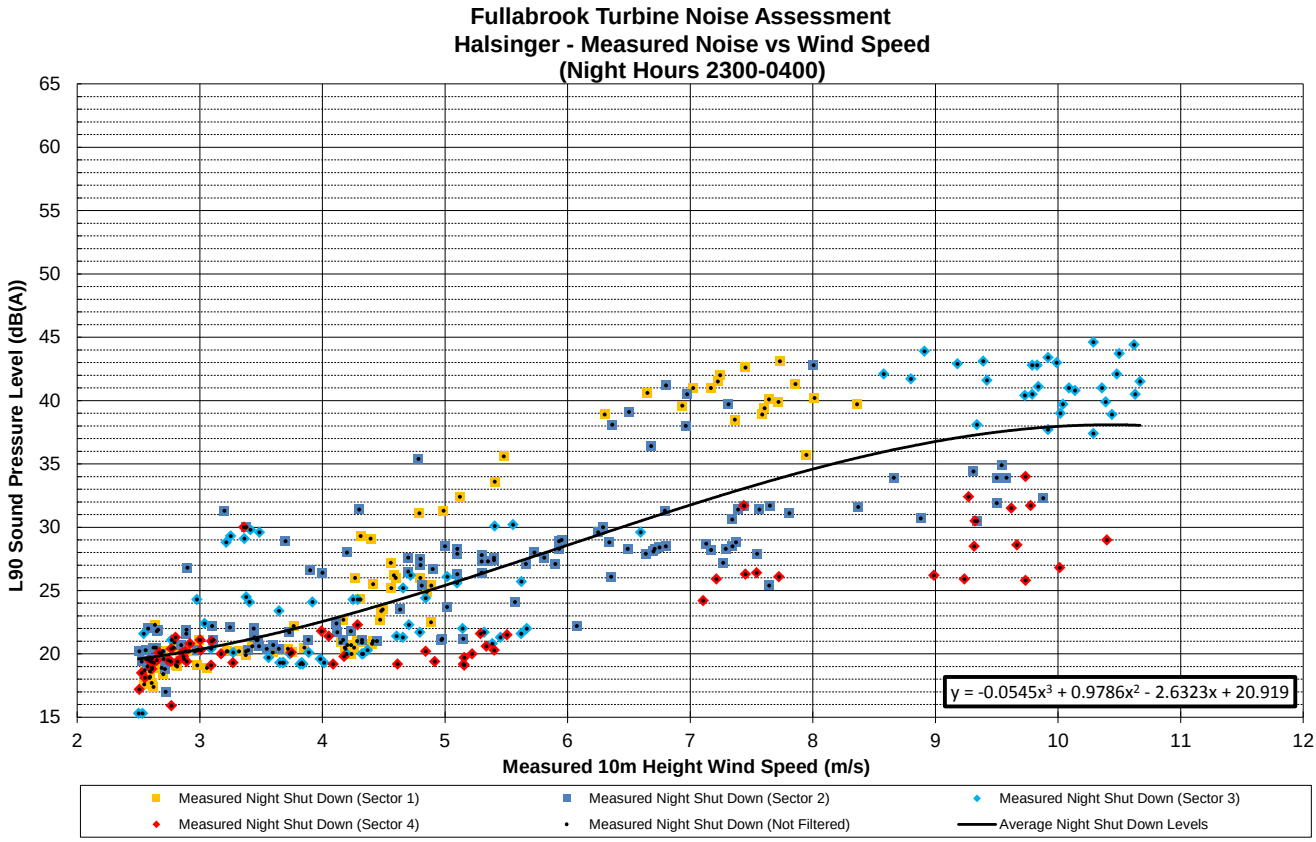
Measured Background Noise Data

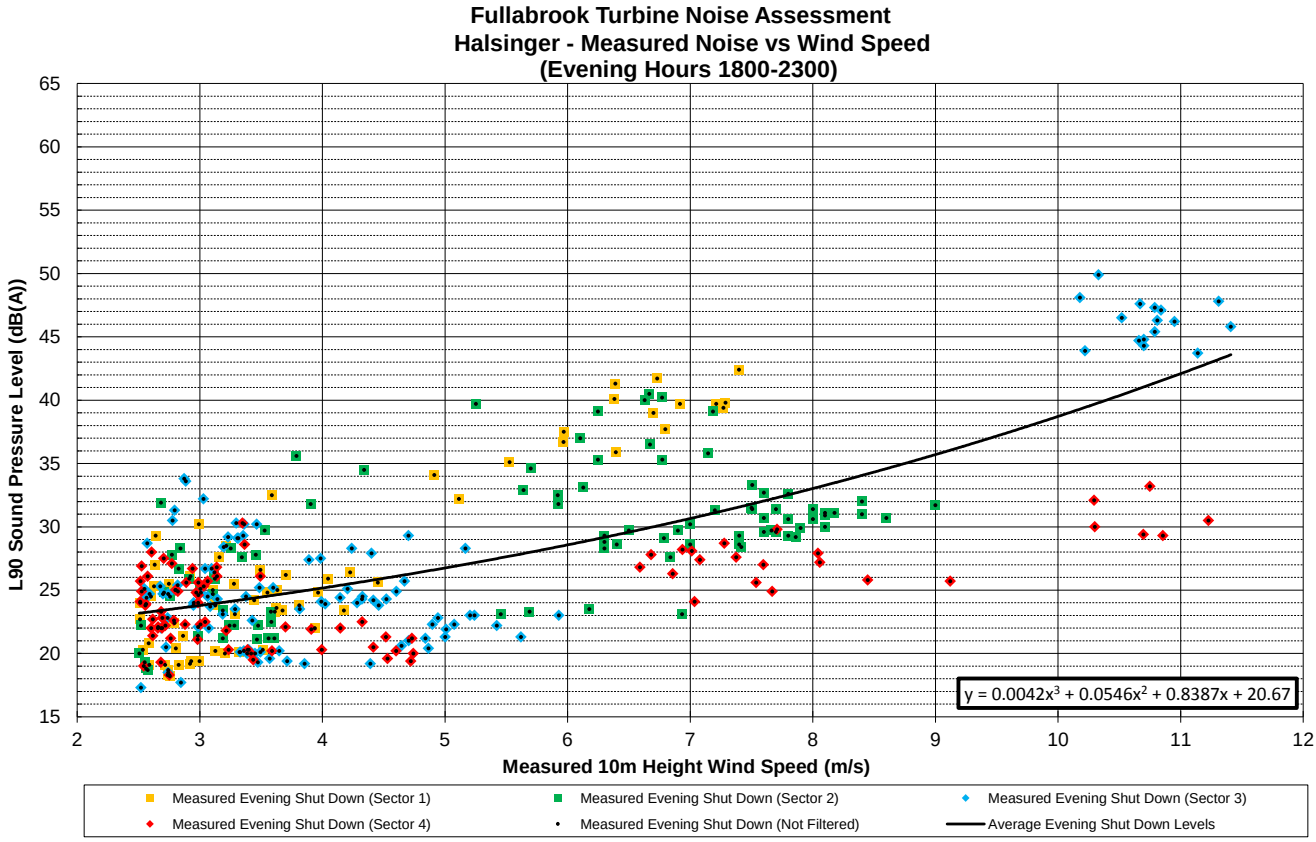

Fullabrook Turbine Noise Assessment
Burland - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.1614x³ + 2.7961x² - 11.355x + 34.146
Measured Night Shut Down (Sector 1)
Measured Night Shut Down (Sector 2)
Measured Night Shut Down (Sector 3)
Measured Night Shut Down (Sector 4)
Measured Night Shut Down (Not Filtered)
Average Night Shut Down Levels

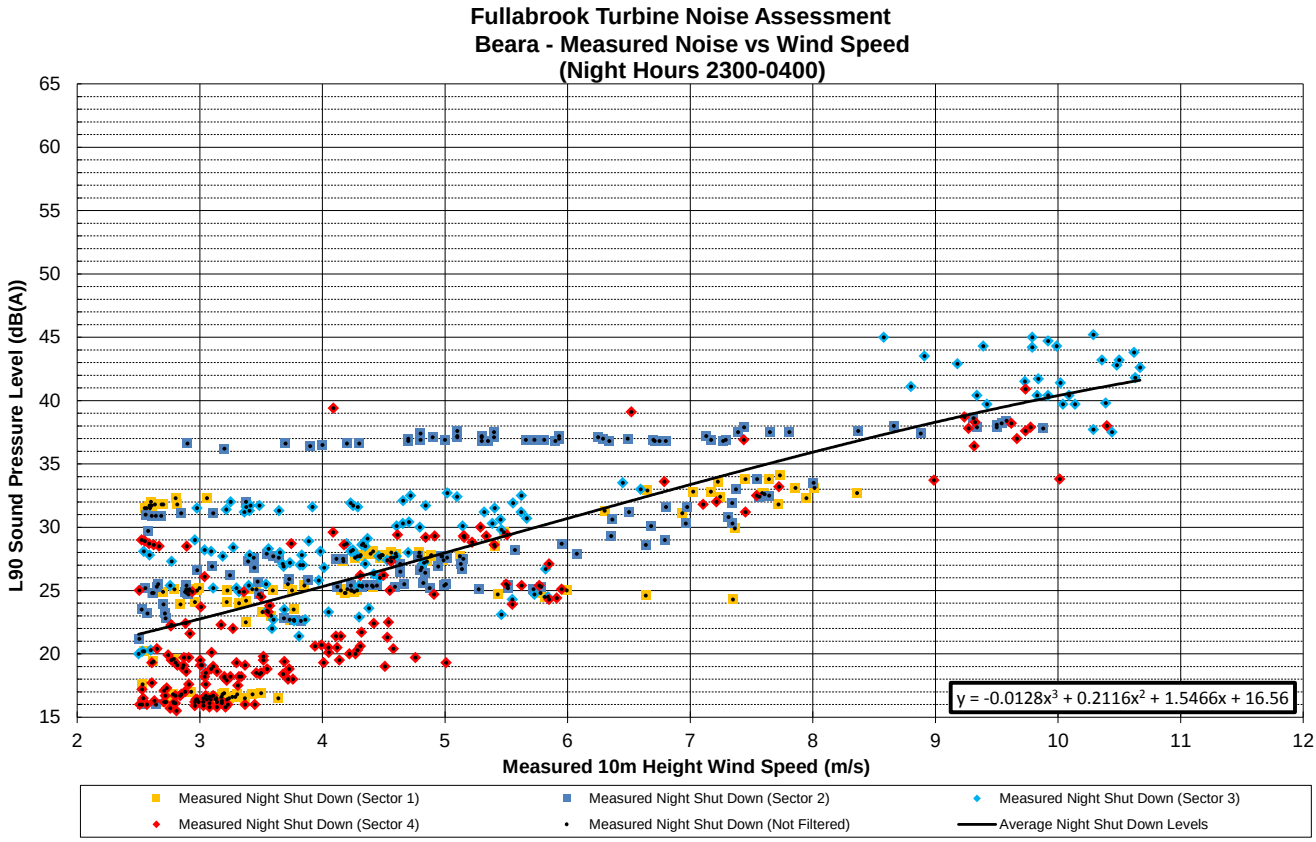

Fullabrook Turbine Noise Assessment
Burland - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0769x³ + 1.359x² - 4.8801x + 31.088
Measured Evening Shut Down (Sector 1)
Measured Evening Shut Down (Sector 2)
Measured Evening Shut Down (Sector 3)
Measured Evening Shut Down (Sector 4)
Measured Evening Shut Down (Not Filtered)
Average Evening Shut Down Levels

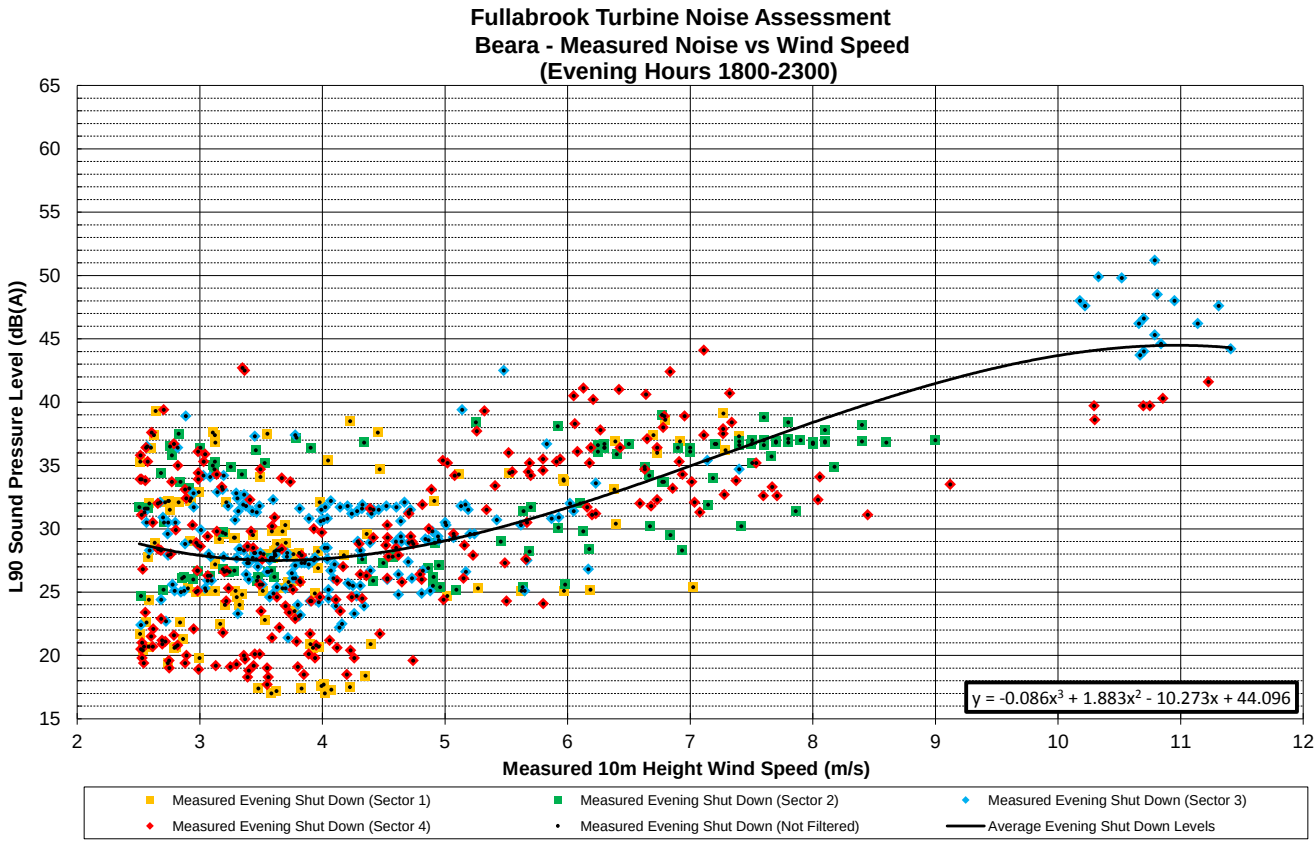

Fullabrook Turbine Noise Assessment
Binalong - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.1295x³ + 2.3345x² - 11.335x + 45.004
Measured Night Shut Down (Sector 1)
Measured Night Shut Down (Sector 2)
Measured Night Shut Down (Sector 3)
Measured Night Shut Down (Sector 4)
Measured Night Shut Down (Not Filtered)
Average Night Shut Down Levels

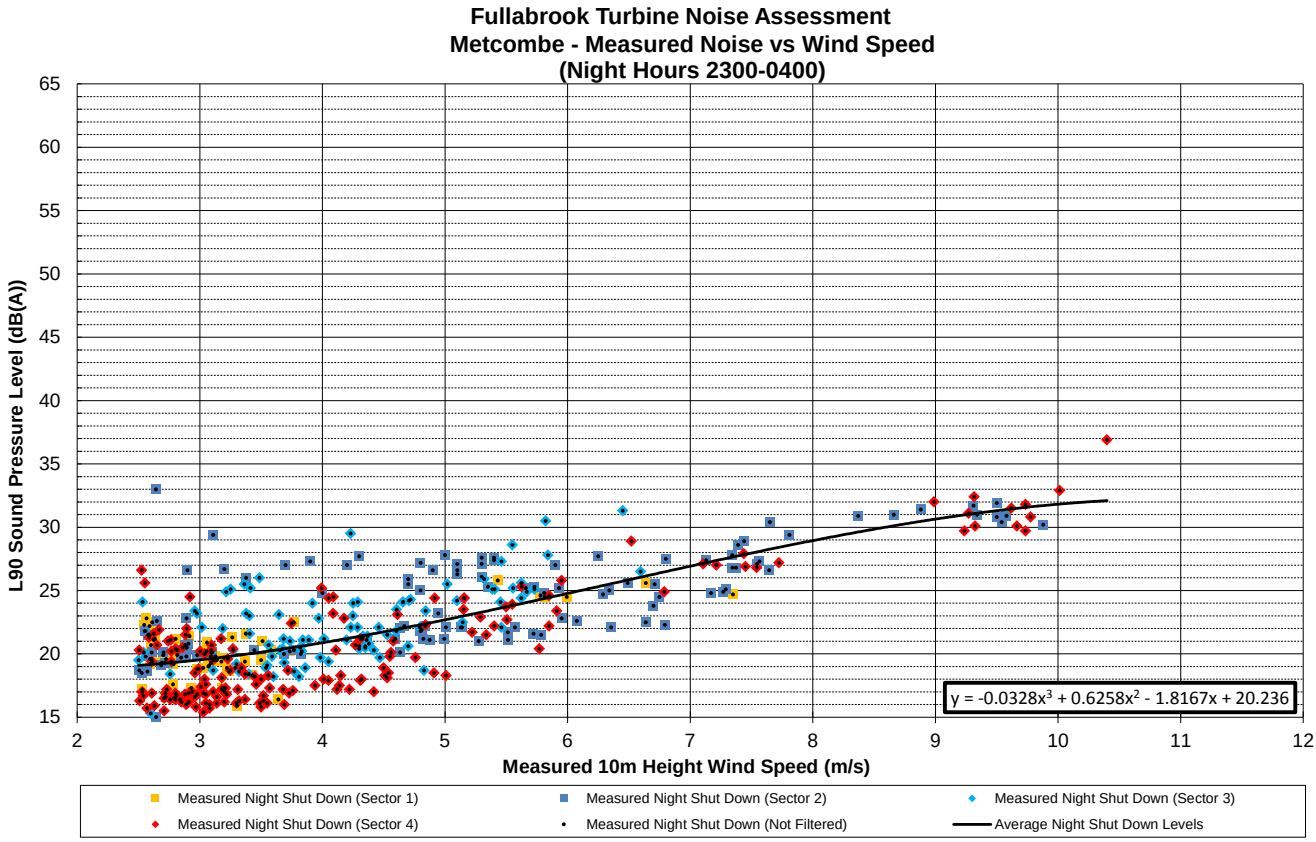

Fullabrook Turbine Noise Assessment
Binalong - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.135x³ + 2.7368x² - 15.756x + 57.328
Measured Evening Shut Down (Sector 1)
Measured Evening Shut Down (Sector 2)
Measured Evening Shut Down (Sector 3)
Measured Evening Shut Down (Sector 4)
Measured Evening Shut Down (Not Filtered)
Average Evening Shut Down Levels

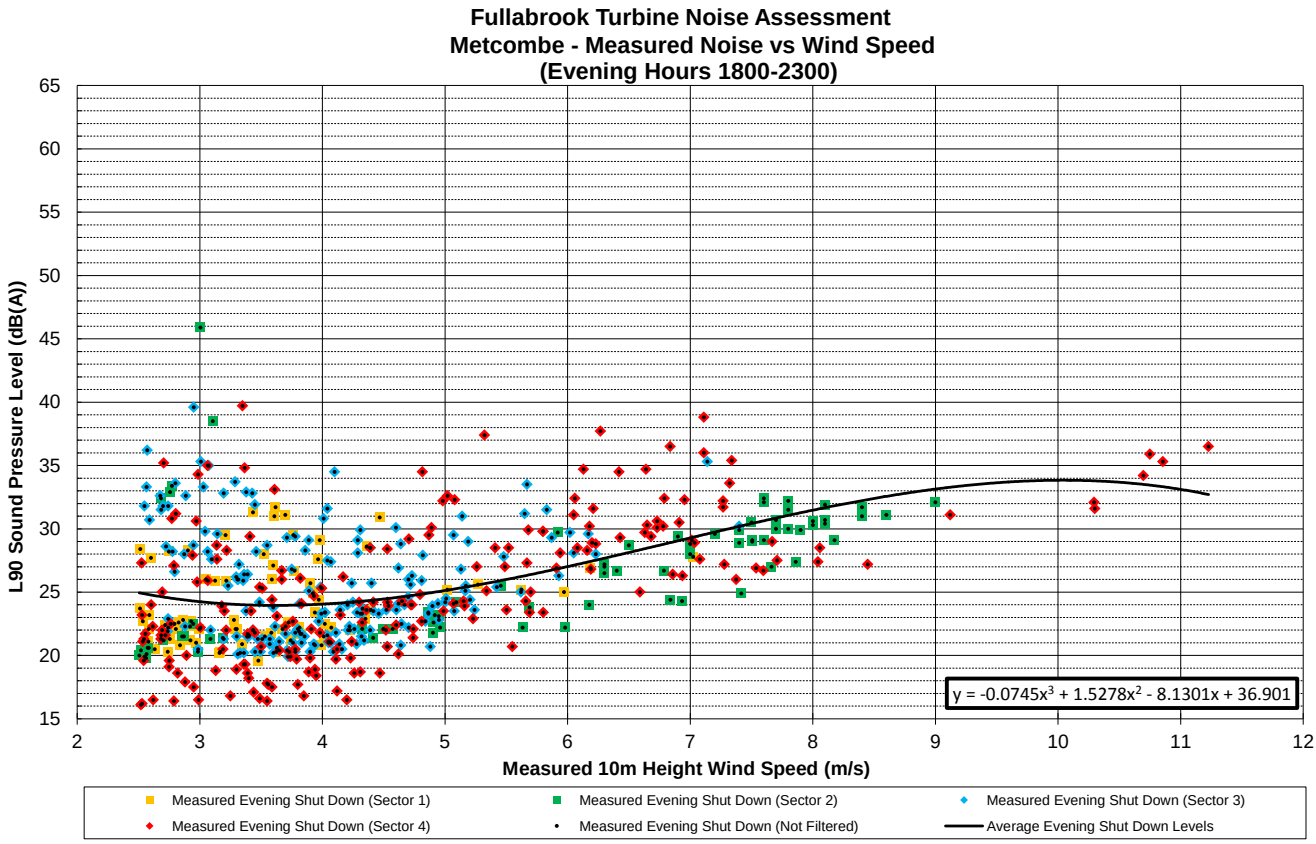

Fullabrook Turbine Noise Assessment
Halsinger - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0545x³ + 0.9786x² - 2.6323x + 20.919
Measured Night Shut Down (Sector 1)
Measured Night Shut Down (Sector 2)
Measured Night Shut Down (Sector 3)
Measured Night Shut Down (Sector 4)
Measured Night Shut Down (Not Filtered)
Average Night Shut Down Levels

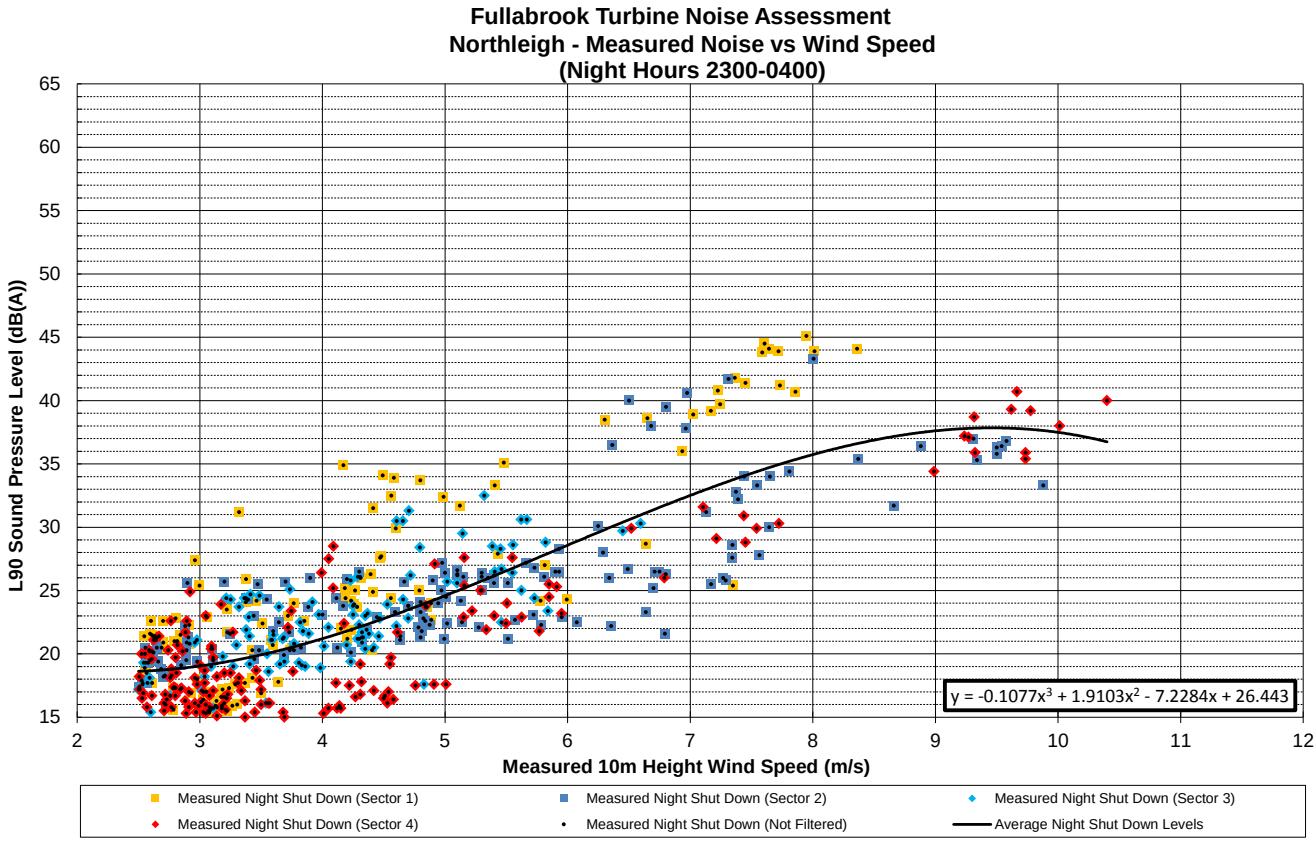

Fullabrook Turbine Noise Assessment
Halsinger - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0042x³ + 0.0546x² + 0.8387x + 20.67
Measured Evening Shut Down (Sector 1)
Measured Evening Shut Down (Sector 2)
Measured Evening Shut Down (Sector 3)
Measured Evening Shut Down (Sector 4)
Measured Evening Shut Down (Not Filtered)
Average Evening Shut Down Levels

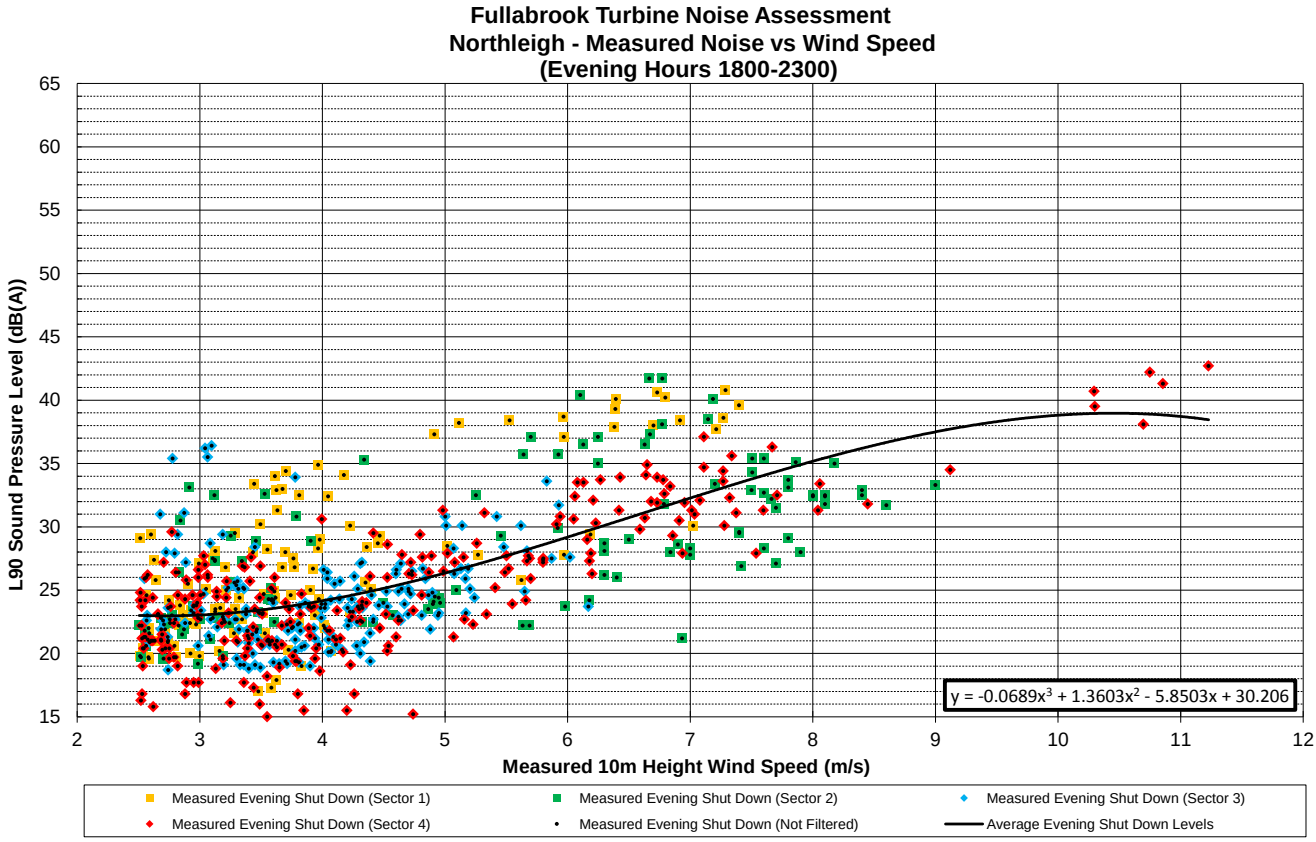

Fullabrook Turbine Noise Assessment
Beara - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0128x³ + 0.2116x² + 1.5466x + 16.56
Measured Night Shut Down (Sector 1)
Measured Night Shut Down (Sector 2)
Measured Night Shut Down (Sector 3)
Measured Night Shut Down (Sector 4)
Measured Night Shut Down (Not Filtered)
Average Night Shut Down Levels

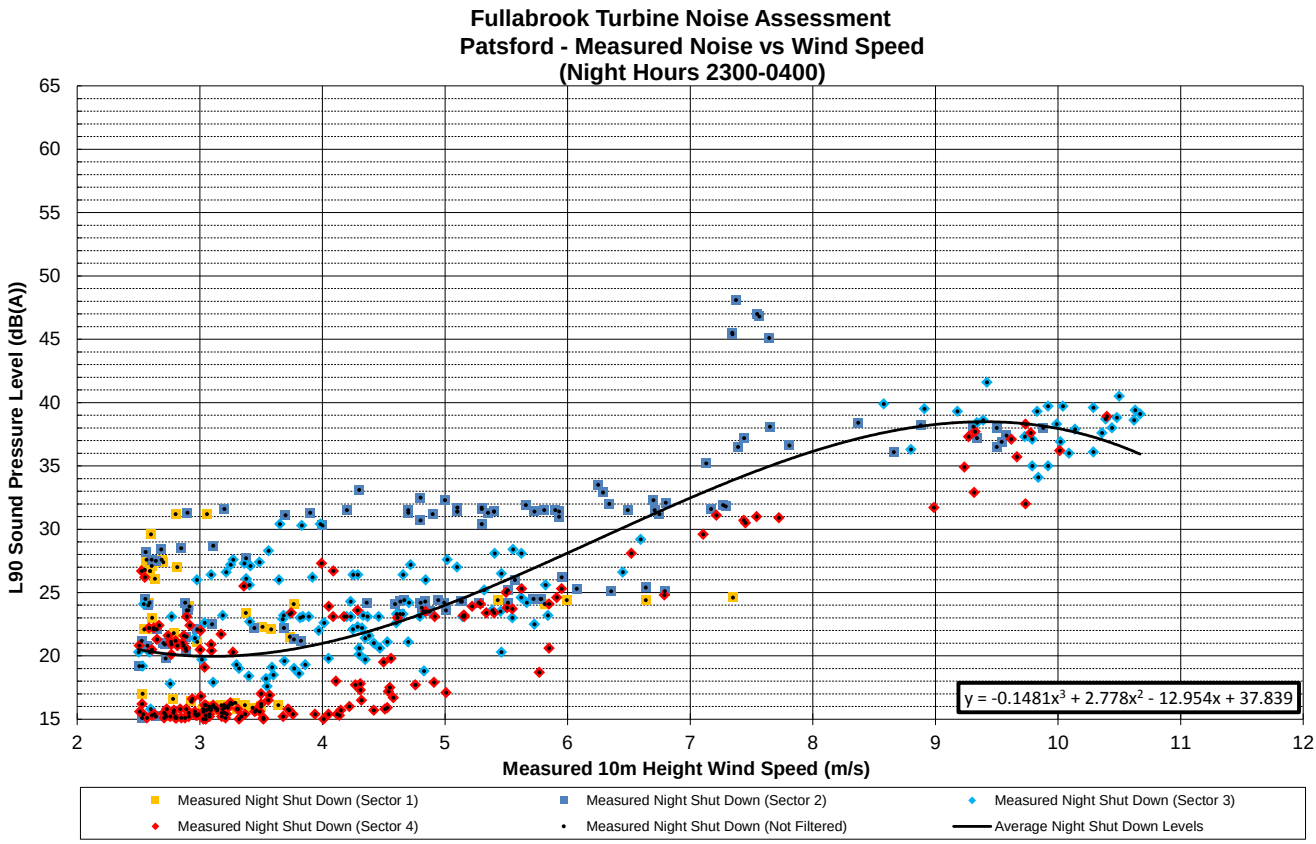

Fullabrook Turbine Noise Assessment
Beara - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.086x³ + 1.883x² - 10.273x + 44.096
Measured Evening Shut Down (Sector 1)
Measured Evening Shut Down (Sector 2)
Measured Evening Shut Down (Sector 3)
Measured Evening Shut Down (Sector 4)
Measured Evening Shut Down (Not Filtered)
Average Evening Shut Down Levels

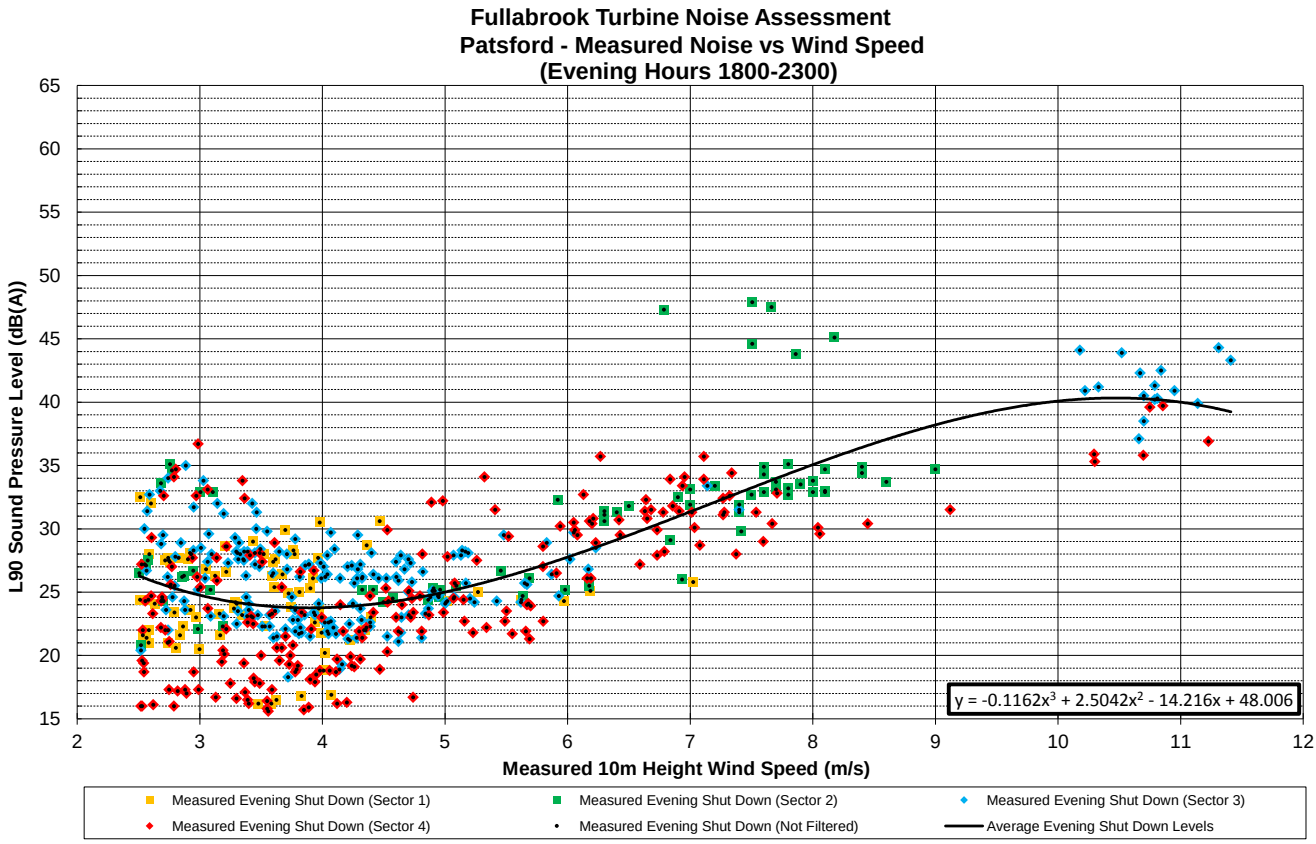

Fullabrook Turbine Noise Assessment
Metcombe - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0328x³ + 0.6258x² - 1.8167x + 20.236
Measured Night Shut Down (Sector 1)
Measured Night Shut Down (Sector 2)
Measured Night Shut Down (Sector 3)
Measured Night Shut Down (Sector 4)
Measured Night Shut Down (Not Filtered)
Average Night Shut Down Levels


Fullabrook Turbine Noise Assessment
Metcombe - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0745x³ + 1.5278x² - 8.1301x + 36.901
Measured Evening Shut Down (Sector 1)
Measured Evening Shut Down (Sector 2)
Measured Evening Shut Down (Sector 3)
Measured Evening Shut Down (Sector 4)
Measured Evening Shut Down (Not Filtered)
Average Evening Shut Down Levels


Fullabrook Turbine Noise Assessment
Northleigh - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.1077x³ + 1.9103x² - 7.2284x + 26.443
Measured Night Shut Down (Sector 1)
Measured Night Shut Down (Sector 2)
Measured Night Shut Down (Sector 3)
Measured Night Shut Down (Sector 4)
Measured Night Shut Down (Not Filtered)
Average Night Shut Down Levels


Fullabrook Turbine Noise Assessment
Northleigh - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0689x³ + 1.3603x² - 5.8503x + 30.206
Measured Evening Shut Down (Sector 1)
Measured Evening Shut Down (Sector 2)
Measured Evening Shut Down (Sector 3)
Measured Evening Shut Down (Sector 4)
Measured Evening Shut Down (Not Filtered)
Average Evening Shut Down Levels


Fullabrook Turbine Noise Assessment
Patsford - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.1481x³ + 2.778x² - 12.954x + 37.839
Measured Night Shut Down (Sector 1)
Measured Night Shut Down (Sector 2)
Measured Night Shut Down (Sector 3)
Measured Night Shut Down (Sector 4)
Measured Night Shut Down (Not Filtered)
Average Night Shut Down Levels


Fullabrook Turbine Noise Assessment
Patsford - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.1162x³ + 2.5042x² - 14.216x + 48.006
Measured Evening Shut Down (Sector 1)
Measured Evening Shut Down (Sector 2)
Measured Evening Shut Down (Sector 3)
Measured Evening Shut Down (Sector 4)
Measured Evening Shut Down (Not Filtered)
Average Evening Shut Down Levels

Appendix C

Tonal Assessment Results

Table 5 – Noise Compliance Tonal Assessment Results (dB) – Sector 1, 0-90°

Property	Measured 10m-height Wind Speed (m/s)	3	4	5	6	7	8	9	10	11
Burland	Night Tonal Penalty	2.2	2.0	1.9	1.7	0.0	-	-	-	-
	Evening Tonal Penalty	3.3	3.1	3.0	2.9	2.8	0.0	-	-	-
Binalong	Night Tonal Penalty	3.0	2.5	2.0	1.5	1.6	-	-	-	-
	Evening Tonal Penalty	3.3	3.0	2.7	2.4	3.2	0.0	-	-	-
Halsinger	Night Tonal Penalty	2.1	1.7	0.0	0.0	0.0	-	-	-	-
	Evening Tonal Penalty	1.9	1.8	1.8	1.8	1.8	0.0	-	-	-
Beara	Night Tonal Penalty	2.2	2.0	1.7	0.0	0.0	-	-	-	-
	Evening Tonal Penalty	2.4	2.5	2.7	2.9	3.0	0.0	-	-	-
Metcombe	Night Tonal Penalty	3.2	2.7	2.2	1.7	0.0	-	-	-	-
	Evening Tonal Penalty	1.7	2.1	2.5	3.0	3.4	1.5	-	-	-
Northleigh	Night Tonal Penalty	4.0	4.0	3.9	3.9	4.5	-	-	-	-
	Evening Tonal Penalty	3.5	3.4	3.4	3.4	5.0	5.0	-	-	-
Patsford	Night Tonal Penalty	2.6	2.2	1.9	1.5	0.0	-	-	-	-
	Evening Tonal Penalty	2.9	2.6	2.2	1.9	1.6	0.0	-	-	-

Table 6 – Noise Compliance Tonal Assessment Results (dB) – Sector 2, 90-180°

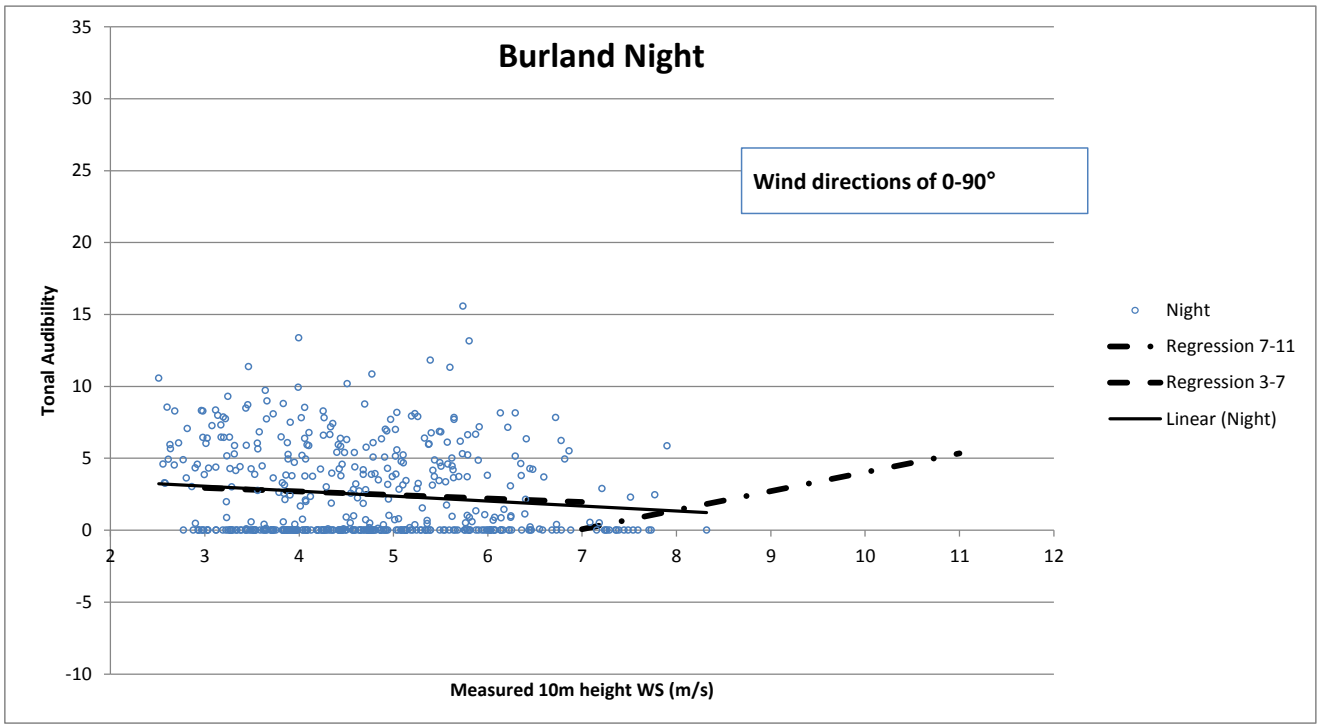
Property	Measured 10m-height Wind Speed (m/s)	3	4	5	6	7	8	9	10	11
Burland	Night Tonal Penalty	1.6	0.0	0.0	0.0	2.2	0.0	-	-	-
	Evening Tonal Penalty	2.9	2.9	2.9	3.0	3.0	1.6	1.6	-	-
Binalong	Night Tonal Penalty	3.2	3.1	3.0	2.9	2.8	0.0	-	-	-
	Evening Tonal Penalty	2.5	2.3	2.2	2.0	2.7	2.4	2.1	-	-
Halsinger	Night Tonal Penalty	1.7	0.0	0.0	0.0	1.6	0.0	-	-	-
	Evening Tonal Penalty	1.6	1.7	1.8	1.9	2.0	0.0	0.0	-	-
Beara	Night Tonal Penalty	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-
	Evening Tonal Penalty	1.9	1.5	0.0	0.0	0.0	0.0	0.0	-	-
Metcombe	Night Tonal Penalty	2.5	2.2	1.9	1.6	2.0	0.0	-	-	-
	Evening Tonal Penalty	3.1	2.6	2.1	1.6	0.0	0.0	1.8	-	-
Northleigh	Night Tonal Penalty	2.7	2.5	2.3	2.1	3.0	3.5	-	-	-
	Evening Tonal Penalty	4.0	3.5	3.1	2.6	3.3	1.8	0.0	-	-
Patsford	Night Tonal Penalty	2.8	2.3	1.8	0.0	0.0	1.5	-	-	-
	Evening Tonal Penalty	2.6	2.2	1.7	0.0	0.0	2.0	3.3	-	-

Table 7 – Noise Compliance Tonal Assessment Results (dB) – Sector 3, 180-270°

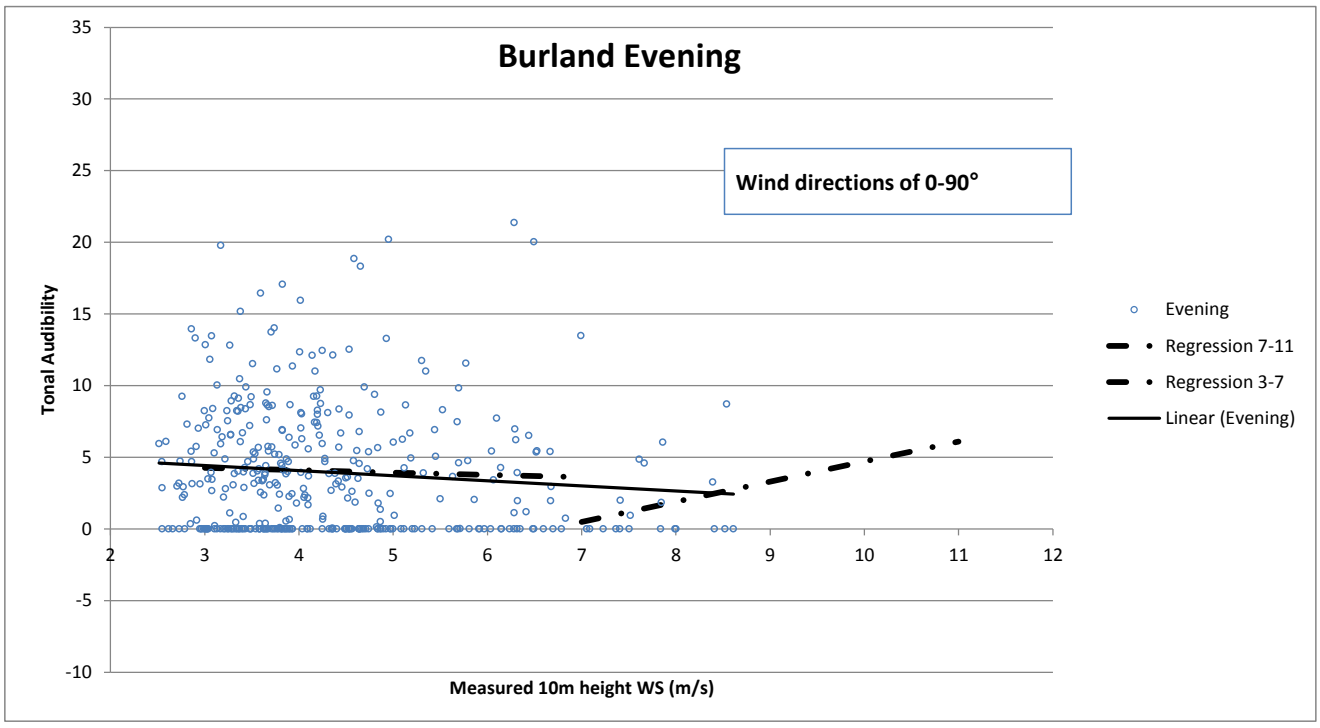
Property	Measured 10m-height Wind Speed (m/s)	3	4	5	6	7	8	9	10	11
Burland	Night Tonal Penalty	2.0	1.9	1.8	1.7	2.3	1.7	0.0	0.0	0.0
	Evening Tonal Penalty	3.0	2.8	2.6	2.3	3.0	2.3	1.7	0.0	0.0
Binalong	Night Tonal Penalty	2.2	2.4	2.5	2.6	3.9	3.2	2.5	1.8	0.0
	Evening Tonal Penalty	1.7	1.7	1.8	1.8	2.7	2.3	1.9	1.5	0.0
Halsinger	Night Tonal Penalty	4.3	3.8	3.3	2.8	2.3	1.8	0.0	0.0	0.0
	Evening Tonal Penalty	4.6	4.2	3.8	3.4	3.3	2.5	1.7	0.0	0.0
Beara	Night Tonal Penalty	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Evening Tonal Penalty	2.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Metcombe	Night Tonal Penalty	4.3	3.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0
	Evening Tonal Penalty	3.9	3.1	2.2	0.0	0.0	0.0	0.0	0.0	0.0
Northleigh	Night Tonal Penalty	1.8	2.5	3.2	4.0	4.7	2.1	0.0	0.0	0.0
	Evening Tonal Penalty	3.2	3.3	3.4	3.5	3.6	1.8	0.0	0.0	0.0
Patsford	Night Tonal Penalty	2.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Evening Tonal Penalty	1.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 8 – Noise Compliance Tonal Assessment Results (dB) – Sector 4, 270-0°

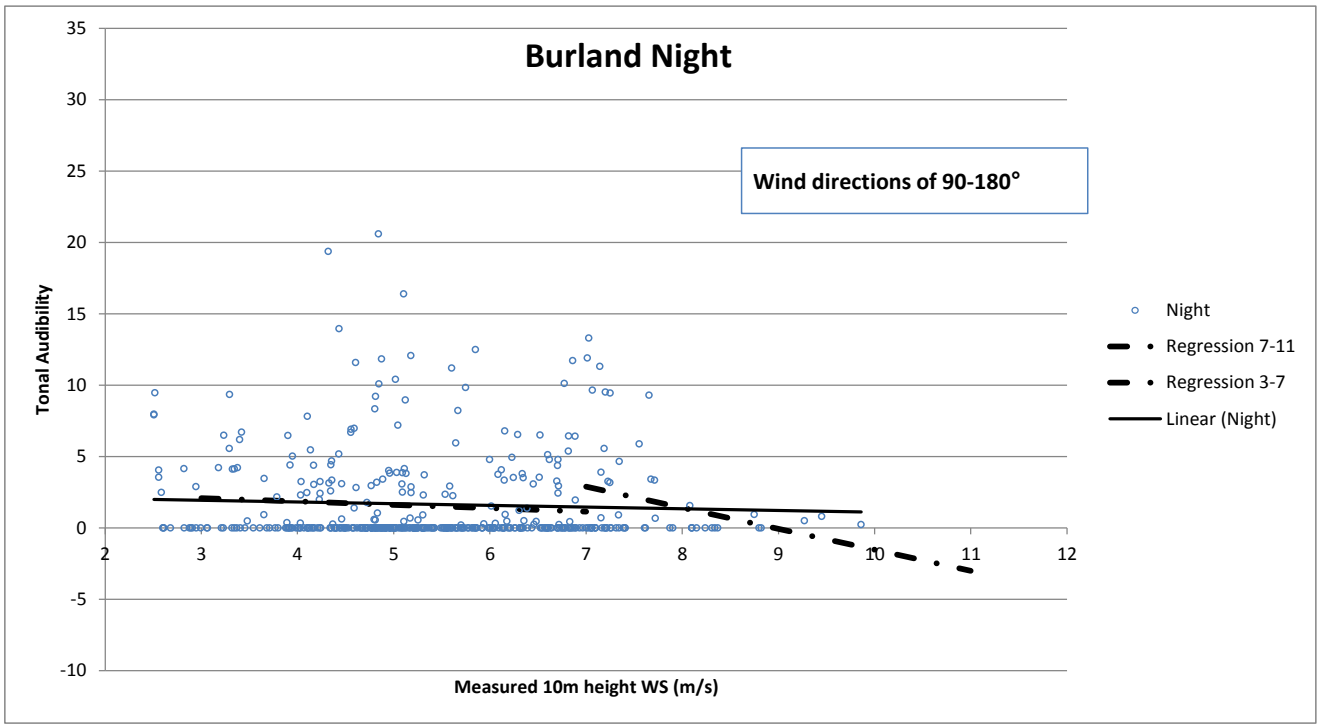
Property	Measured 10m-height Wind Speed (m/s)	3	4	5	6	7	8	9	10	11
Burland	Night Tonal Penalty	-	3.2	3.3	3.4	5.0	4.8	-	-	-
	Evening Tonal Penalty	-	2.7	3.0	3.3	3.6	-	-	-	-
Binalong	Night Tonal Penalty	-	2.8	2.3	1.8	2.1	1.7	-	-	-
	Evening Tonal Penalty	-	2.0	1.8	1.7	2.6	-	-	-	-
Halsinger	Night Tonal Penalty	-	2.2	2.1	2.0	2.0	1.6	-	-	-
	Evening Tonal Penalty	-	2.9	2.6	2.3	2.0	-	-	-	-
Beara	Night Tonal Penalty	-	0.0	0.0	0.0	0.0	0.0	-	-	-
	Evening Tonal Penalty	-	2.0	1.7	1.5	0.0	-	-	-	-
Metcombe	Night Tonal Penalty	-	2.7	2.0	0.0	0.0	0.0	-	-	-
	Evening Tonal Penalty	-	2.5	2.0	1.6	1.6	-	-	-	-
Northleigh	Night Tonal Penalty	-	4.2	3.6	3.0	5.0	4.7	-	-	-
	Evening Tonal Penalty	-	3.8	4.1	4.3	5.0	-	-	-	-
Patsford	Night Tonal Penalty	-	0.0	0.0	0.0	0.0	0.0	-	-	-
	Evening Tonal Penalty	-	0.0	0.0	0.0	0.0	-	-	-	-



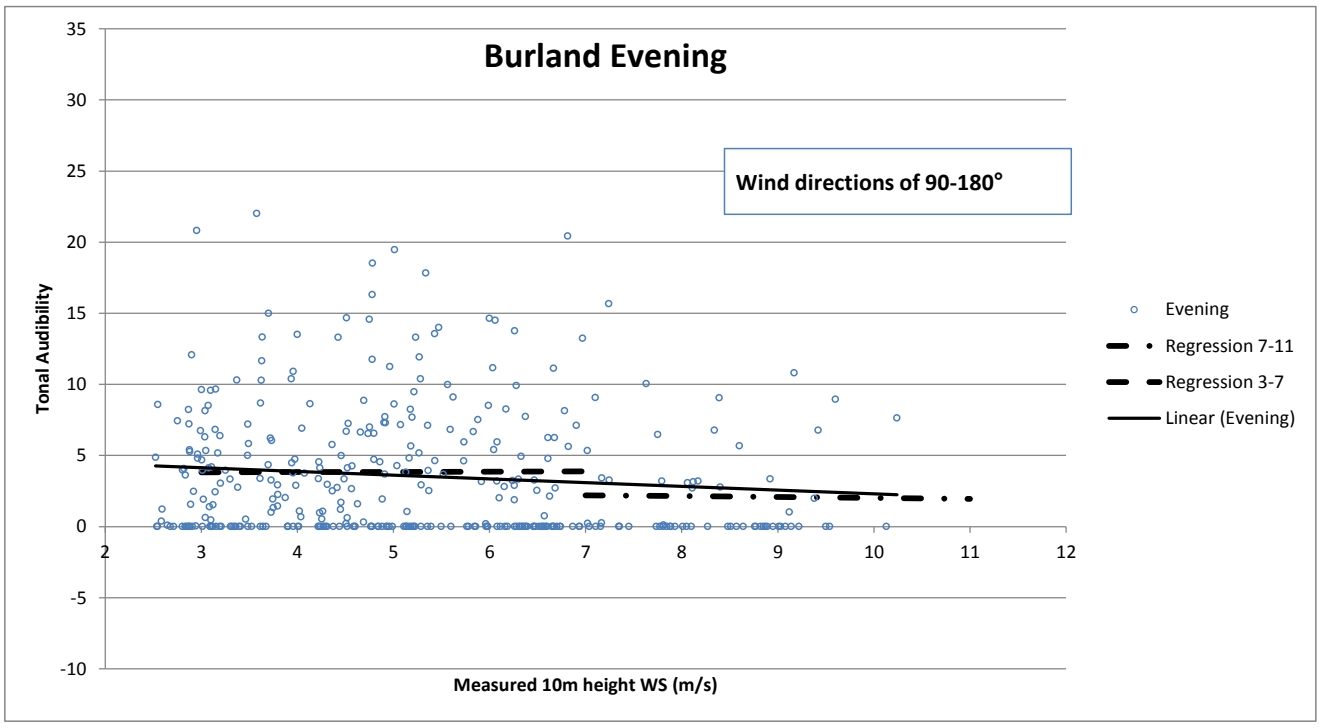
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.3	2.1	1.8	1.5	0.0	-	-	-	-
Bin Analysis	2.7	1.7	1.8	1.9	0.0	0.0	-	-	-
Linear Regression 3-7,7-11	2.2	2.0	1.9	1.7	0.0	-	-	-	-
Average 3-7, 7-11	1.9				0.0				
Overall Average	1.9								



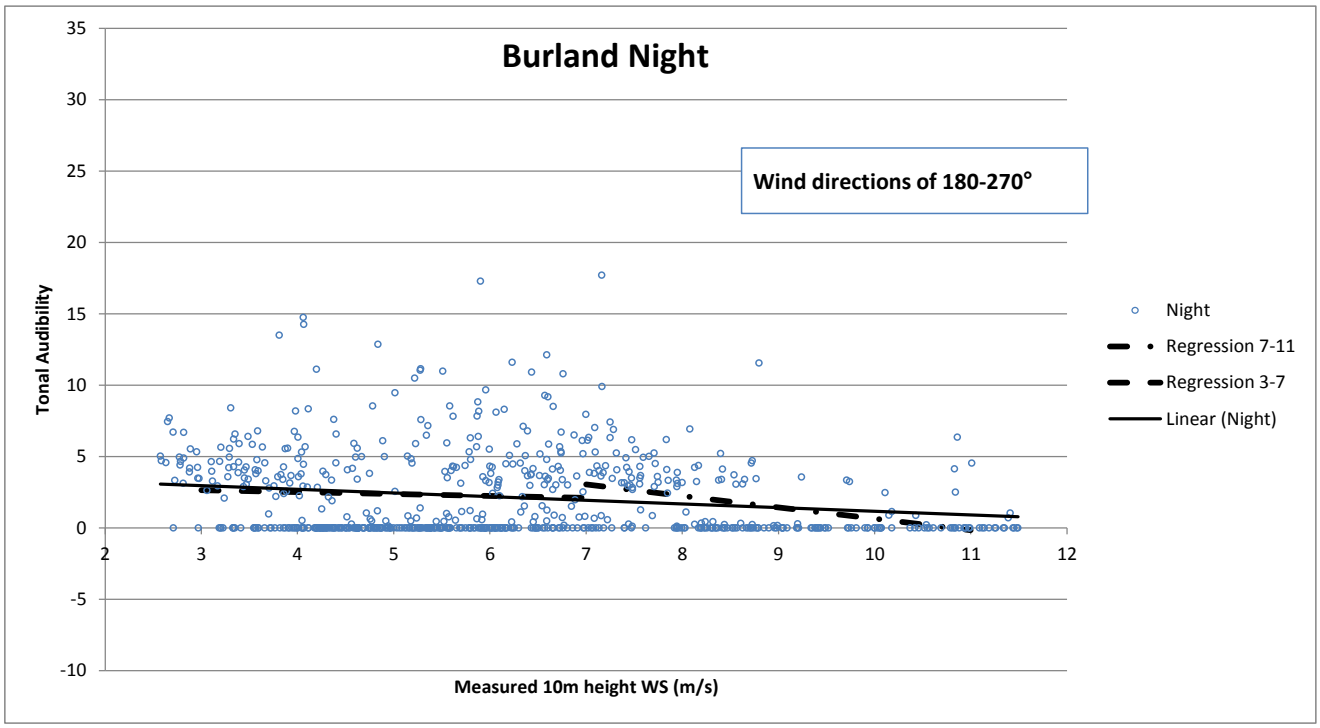
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	3.4	3.1	2.8	2.6	2.3	2.0	-	-	-
Bin Analysis	3.3	3.2	2.8	2.8	1.8	0.0	2.2	-	-
Linear Regression 3-7,7-11	3.3	3.1	3.0	2.9	2.8	0.0	-	-	-
Average 3-7, 7-11	3.1				0.0				
Overall Average	3.0								



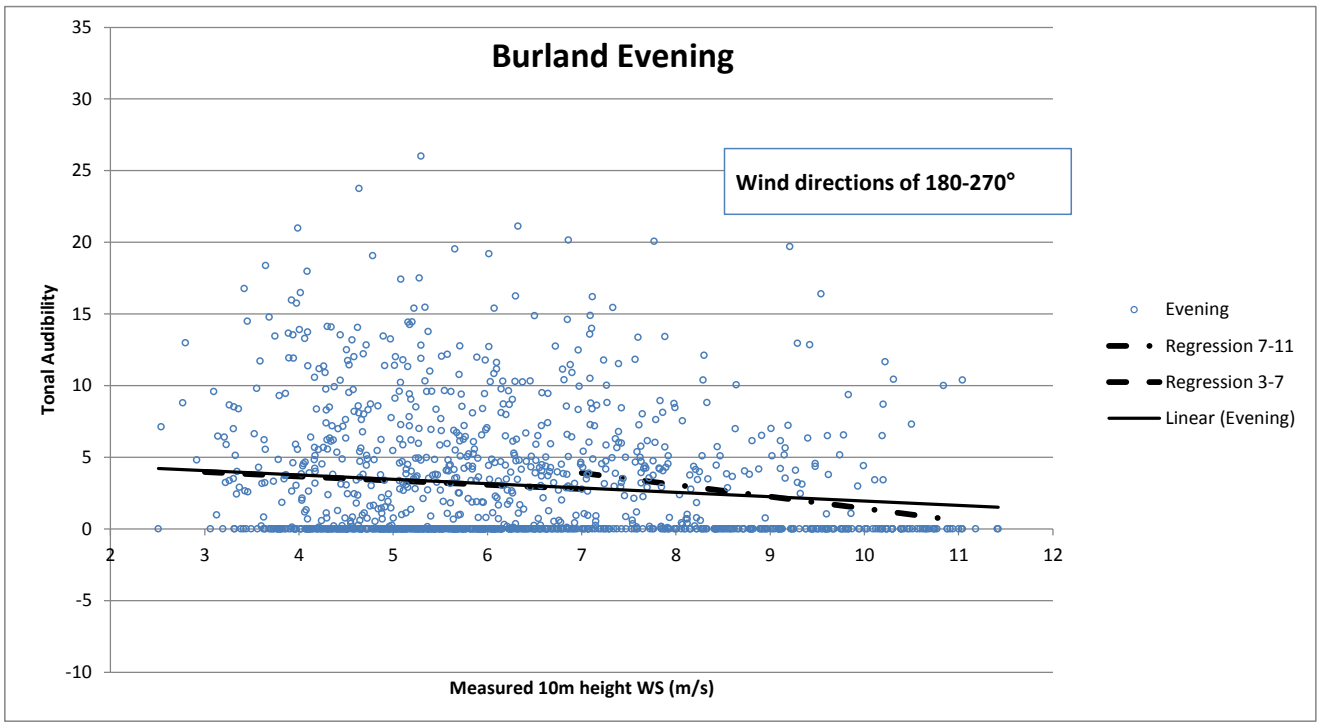
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-
Bin Analysis	1.9	0.0	0.0	0.0	1.6	0.0	0.0	0.0	-
Linear Regression 3-7,7-11	1.6	0.0	0.0	0.0	2.2	0.0	-	-	-
Average 3-7, 7-11	0.0				0.0				
Overall Average	0.0								



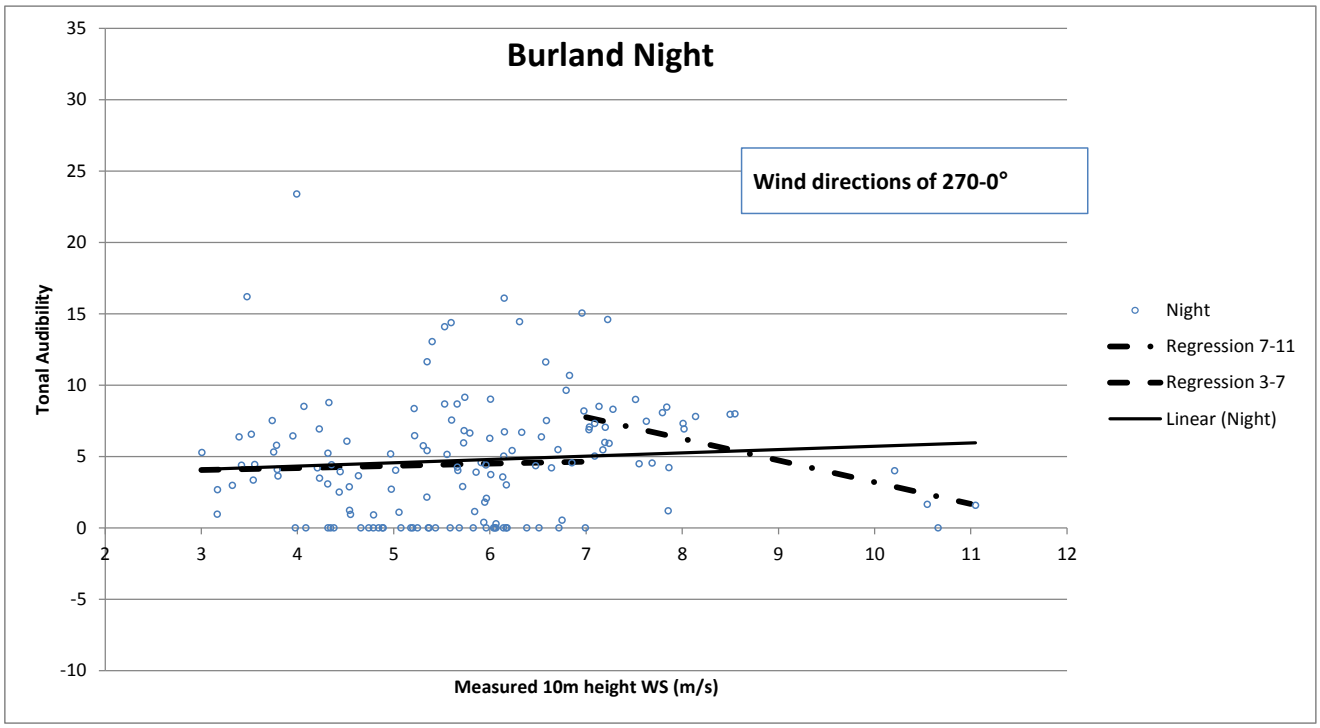
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	3.2	3.0	2.8	2.5	2.3	2.1	1.9	-	-
Bin Analysis	2.5	2.9	3.7	2.6	2.3	1.7	0.0	2.5	-
Linear Regression 3-7,7-11	2.9	2.9	2.9	3.0	3.0	1.6	1.6	-	-
Average 3-7, 7-11	2.9				1.6				
Overall Average	0.0								



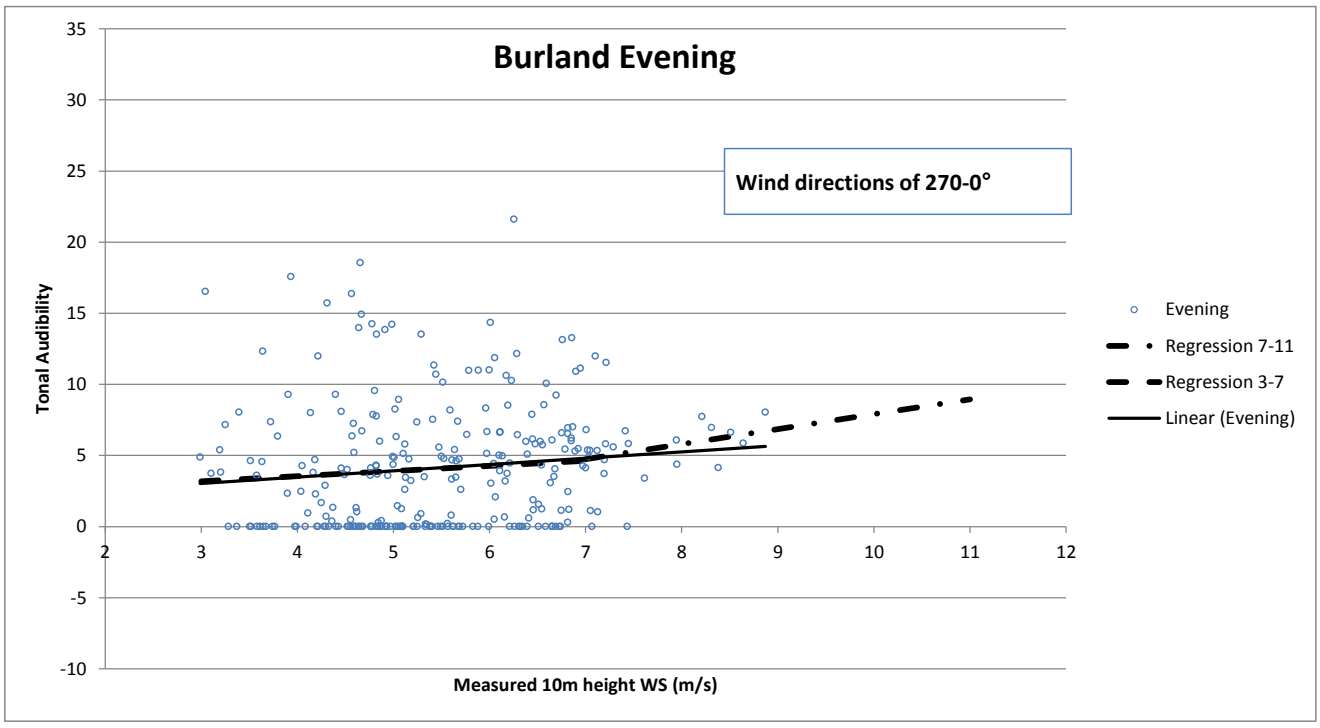
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.2	2.0	1.8	1.6	0.0	0.0	0.0	0.0	0.0
Bin Analysis	2.9	1.7	0.0	1.8	2.5	0.0	0.0	0.0	0.0
Linear Regression 3-7,7-11	2.0	1.9	1.8	1.7	2.3	1.7	0.0	0.0	0.0
Average 3-7, 7-11	1.8				0.0				
Overall Average	1.6								



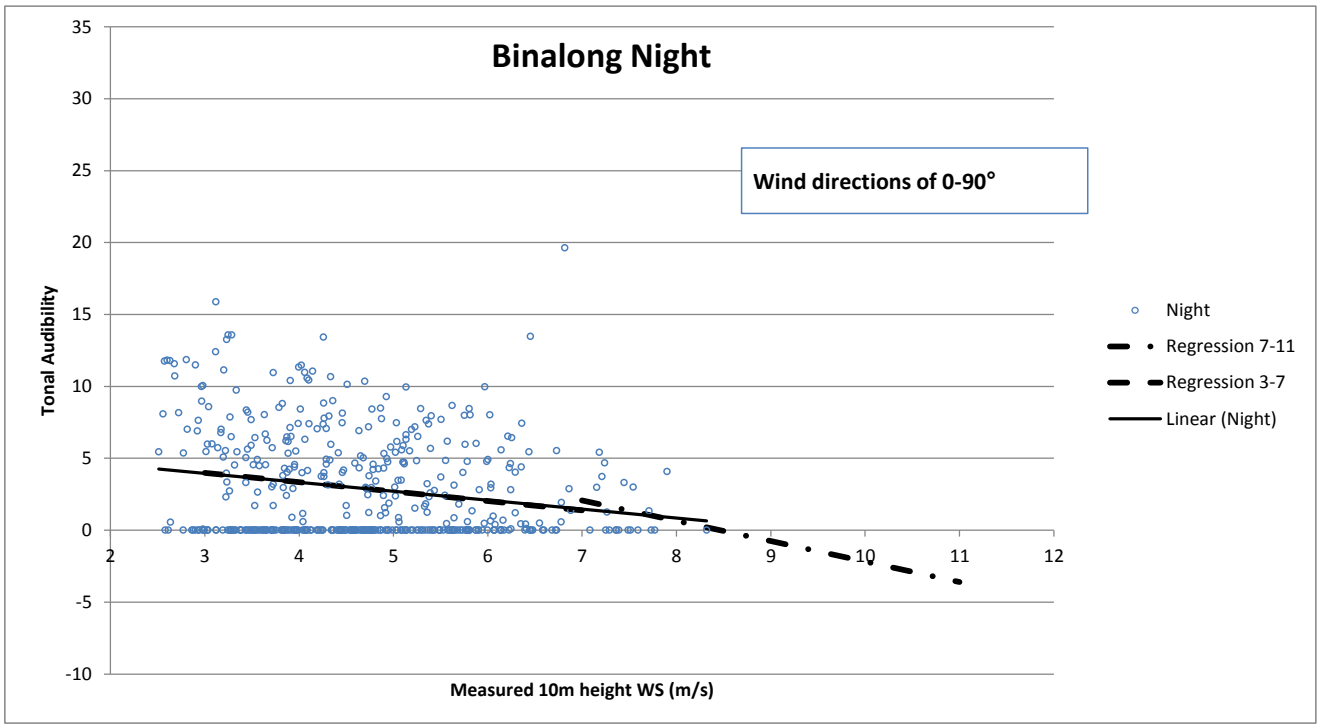
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	3.1	2.9	2.6	2.4	2.2	1.9	1.7	0.0	0.0
Bin Analysis	3.6	2.8	2.5	2.2	2.9	2.2	1.5	0.0	0.0
Linear Regression 3-7,7-11	3.0	2.8	2.6	2.3	3.0	2.3	1.7	0.0	0.0
Average 3-7, 7-11	2.5				1.9				
Overall Average	2.3								



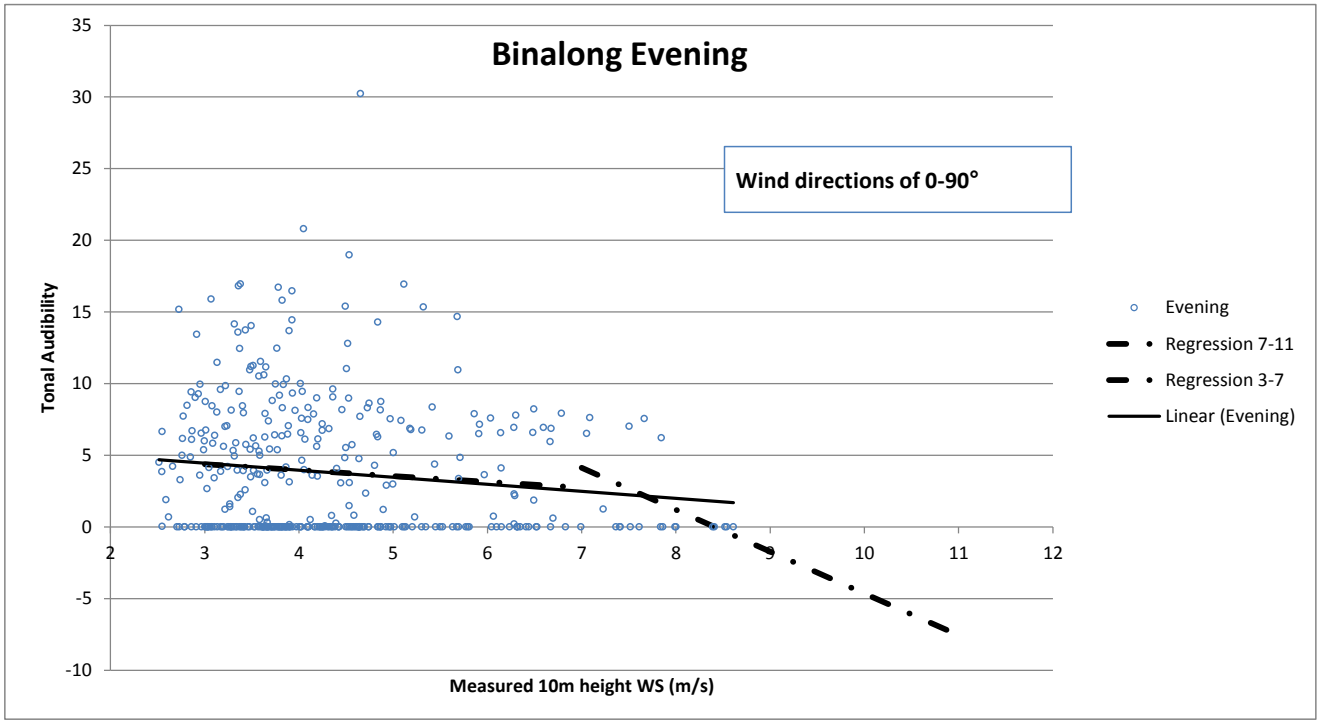
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	3.3	3.5	3.7	3.8	4.0	-	-	-
Bin Analysis	4.3	3.7	2.1	3.5	5.0	4.9	5.0	3.1	0.0
Linear Regression 3-7,7-11	-	3.2	3.3	3.4	5.0	4.8	-	-	-
Average 3-7, 7-11	3.4				4.8				
Overall Average	3.6								



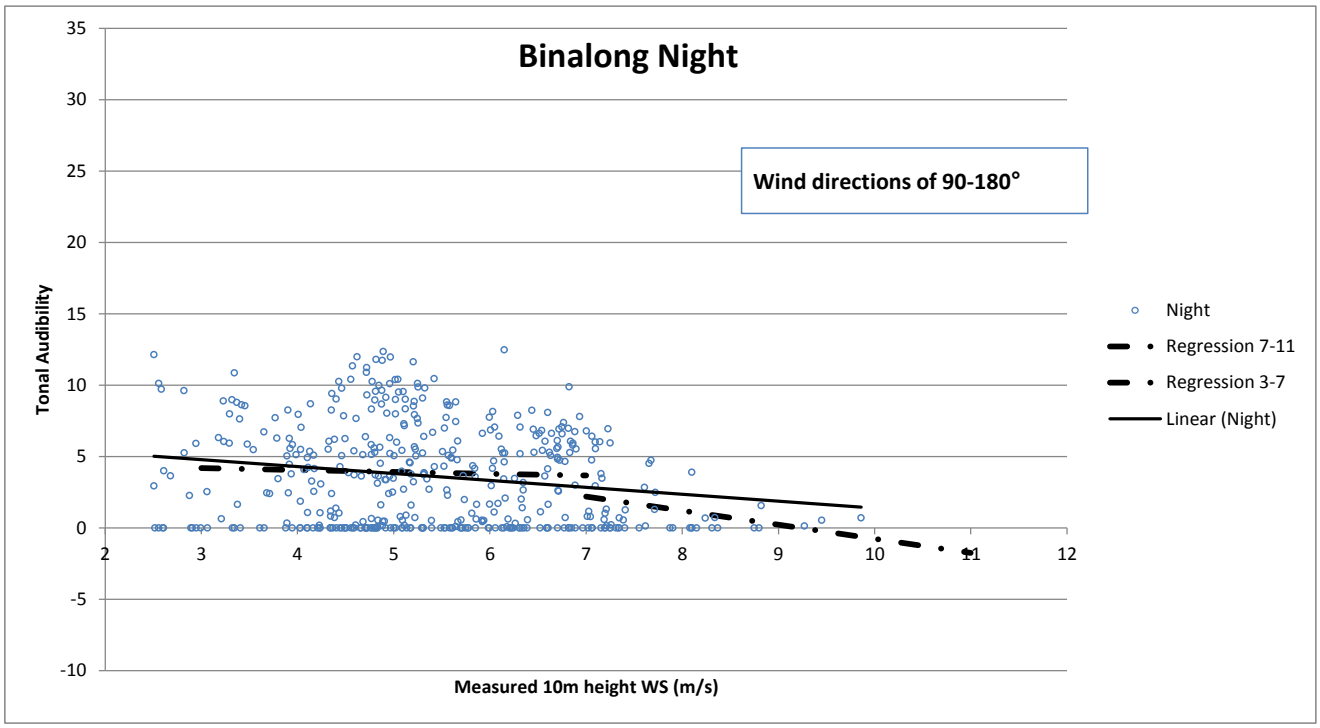
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	2.6	3.0	3.3	3.7	-	-	-	-
Bin Analysis	4.2	2.6	2.6	3.5	3.6	4.2	5.0	-	-
Linear Regression 3-7,7-11	-	2.7	3.0	3.3	3.6	-	-	-	-
Average 3-7, 7-11	3.1				4.8				
Overall Average	3.2								



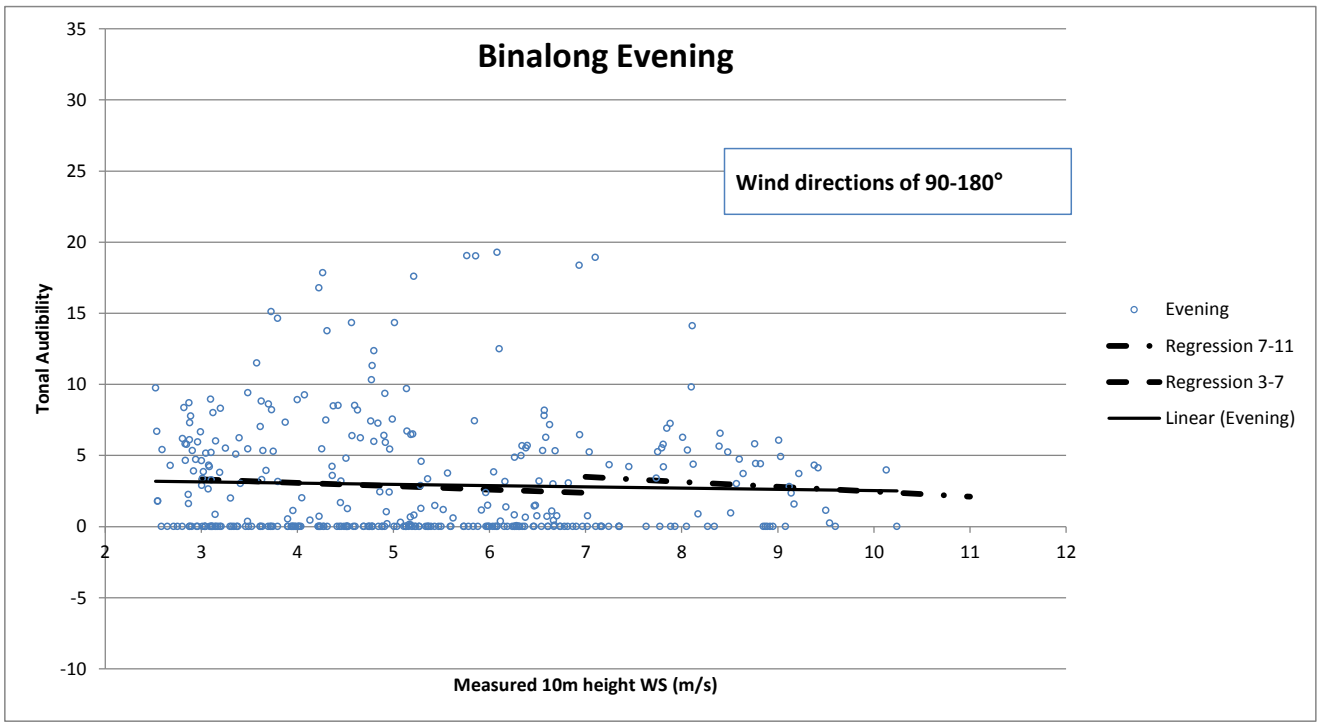
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	3.0	2.5	2.1	1.6	0.0	-	-	-	-
Bin Analysis	3.6	2.3	1.8	1.7	1.6	0.0	-	-	-
Linear Regression 3-7,7-11	3.0	2.5	2.0	1.5	1.6	-	-	-	-
Average 3-7, 7-11	2.3				0.0				
Overall Average	2.2								



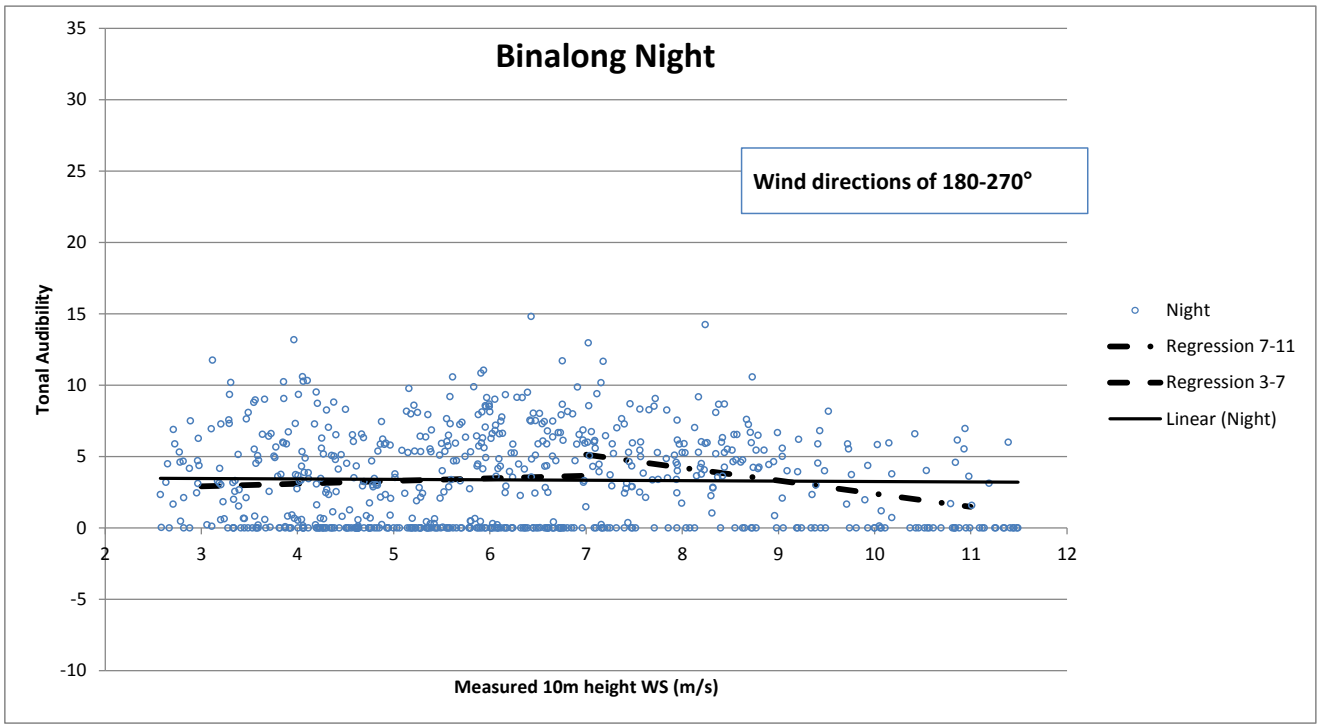
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	3.4	3.0	2.6	2.3	1.9	1.5	-	-	-
Bin Analysis	3.5	2.8	2.9	2.3	2.1	0.0	0.0	-	-
Linear Regression 3-7,7-11	3.3	3.0	2.7	2.4	3.2	0.0	-	-	-
Average 3-7, 7-11	3.0				0.0				
Overall Average	2.9								



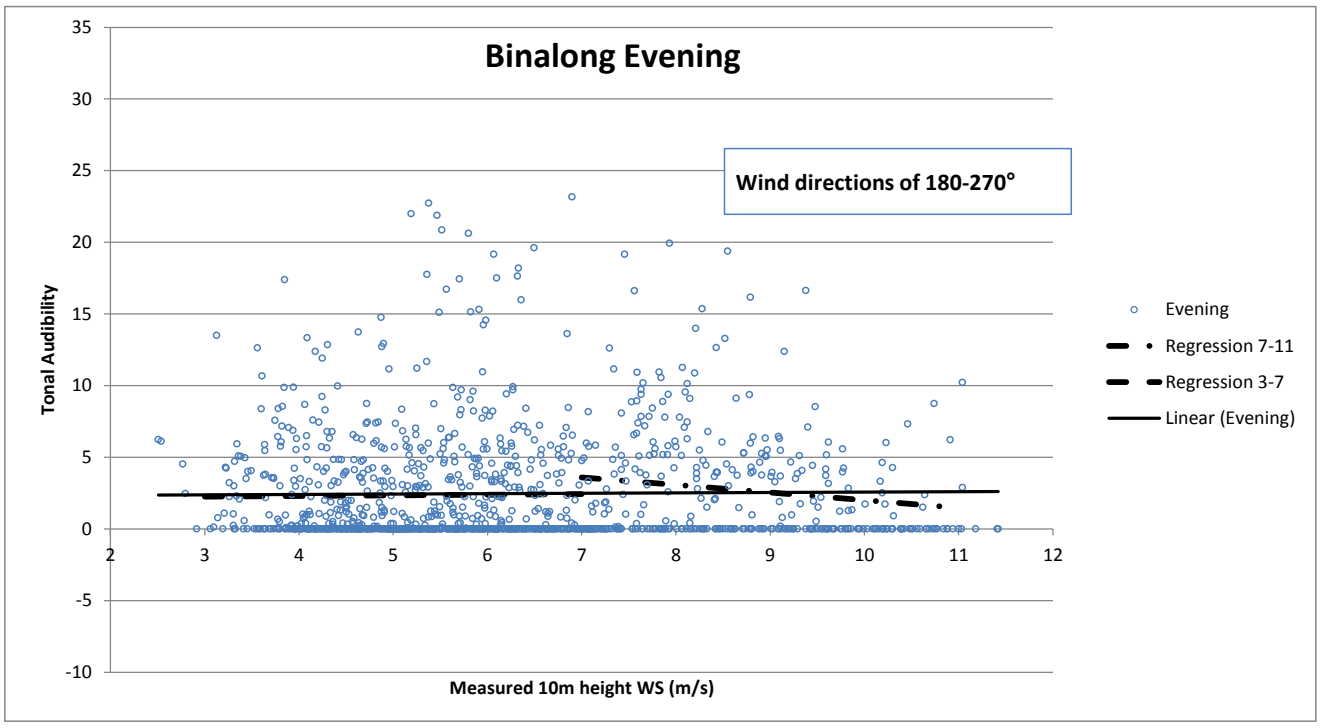
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	3.7	3.3	2.9	2.5	2.2	1.8	-	-	-
Bin Analysis	3.4	2.6	3.5	2.4	2.4	0.0	0.0	0.0	-
Linear Regression 3-7,7-11	3.2	3.1	3.0	2.9	2.8	0.0	-	-	-
Average 3-7, 7-11	3.0				0.0				
Overall Average	2.8								



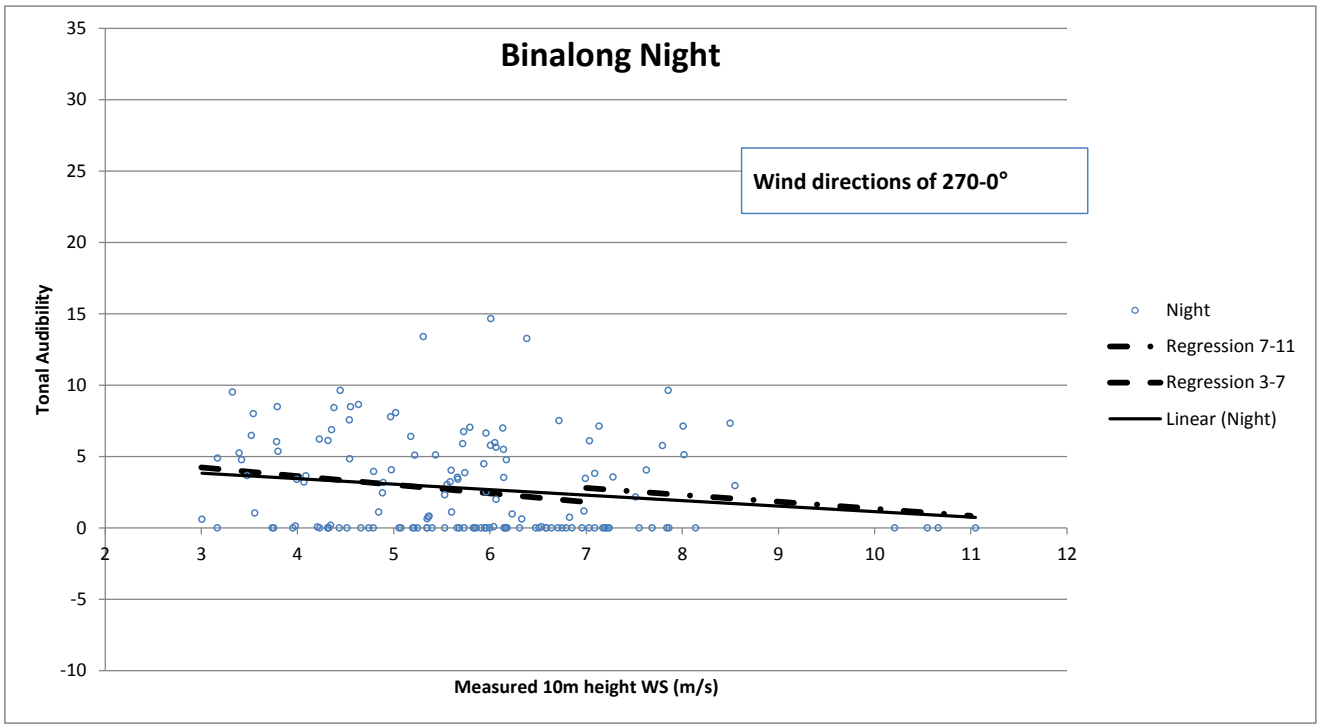
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.4	2.3	2.3	2.2	2.1	2.1	2.0	-	-
Bin Analysis	2.3	2.6	2.2	1.8	2.0	3.2	2.0	0.0	-
Linear Regression 3-7,7-11	2.5	2.3	2.2	2.0	2.7	2.4	2.1	-	-
Average 3-7, 7-11	2.2				2.3				
Overall Average	0.0								



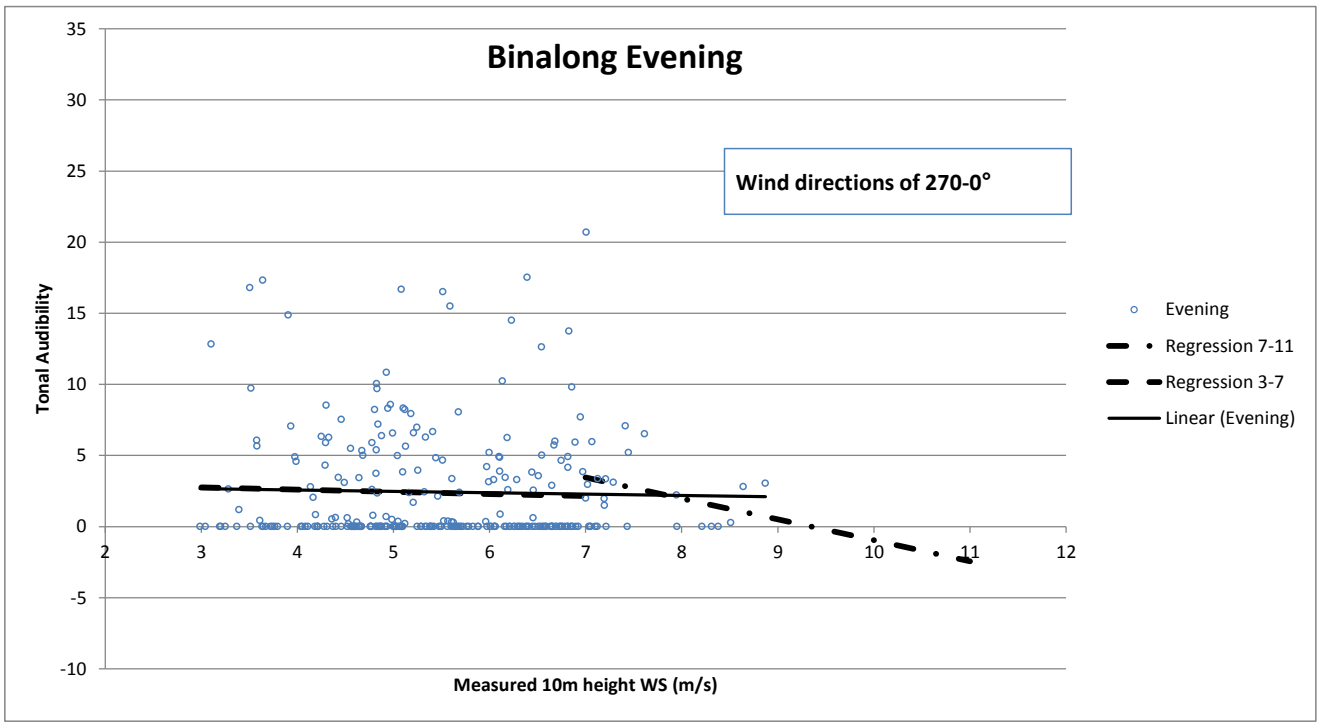
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.4
Bin Analysis	2.6	2.5	1.7	3.0	3.0	3.6	2.7	1.7	0.0
Linear Regression 3-7,7-11	2.2	2.4	2.5	2.6	3.9	3.2	2.5	1.8	0.0
Average 3-7, 7-11	2.5				2.7				
Overall Average	2.6								



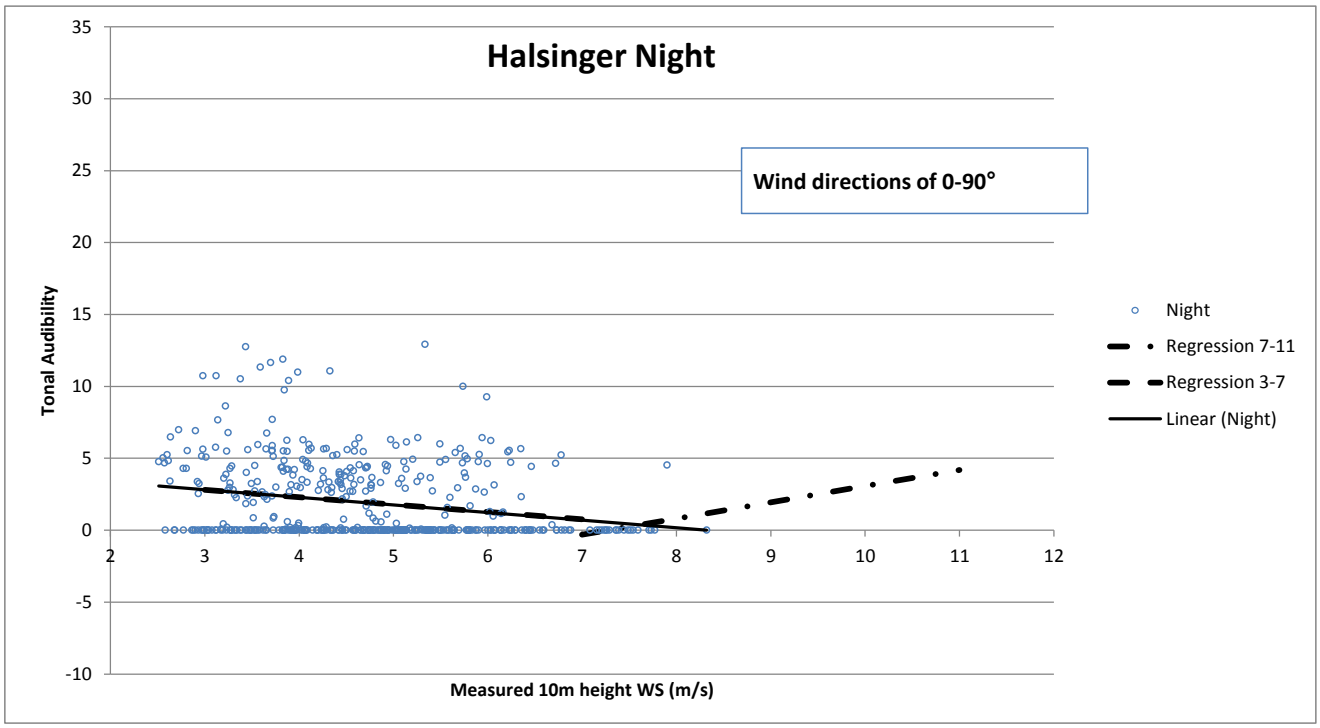
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	2.0
Bin Analysis	2.2	1.8	0.0	2.2	0.0	3.2	2.4	0.0	0.0
Linear Regression 3-7,7-11	1.7	1.7	1.8	1.8	2.7	2.3	1.9	1.5	0.0
Average 3-7, 7-11	1.8				2.1				
Overall Average	1.9								



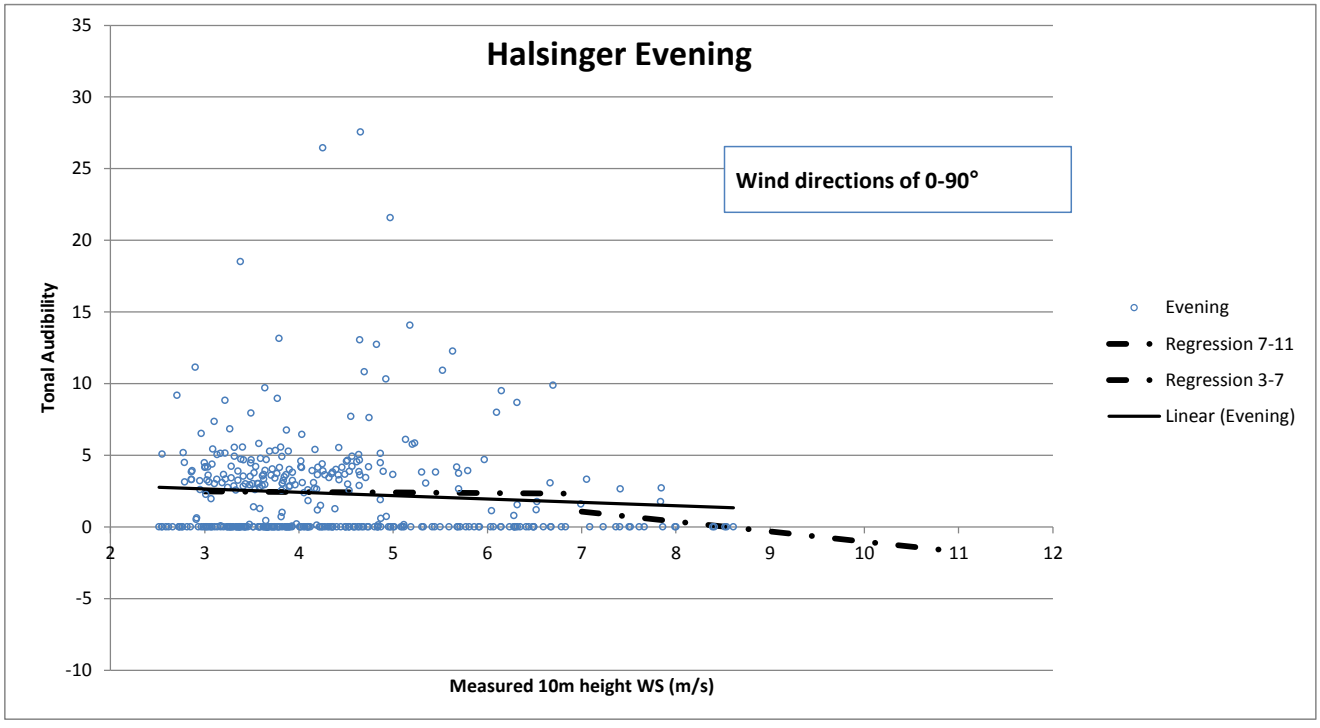
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	2.6	2.3	2.0	1.7	0.0	-	-	-
Bin Analysis	3.1	2.5	2.3	2.2	0.0	2.3	3.9	0.0	0.0
Linear Regression 3-7,7-11	-	2.8	2.3	1.8	2.1	1.7	-	-	-
Average 3-7, 7-11	2.2				1.7				
Overall Average	2.1								



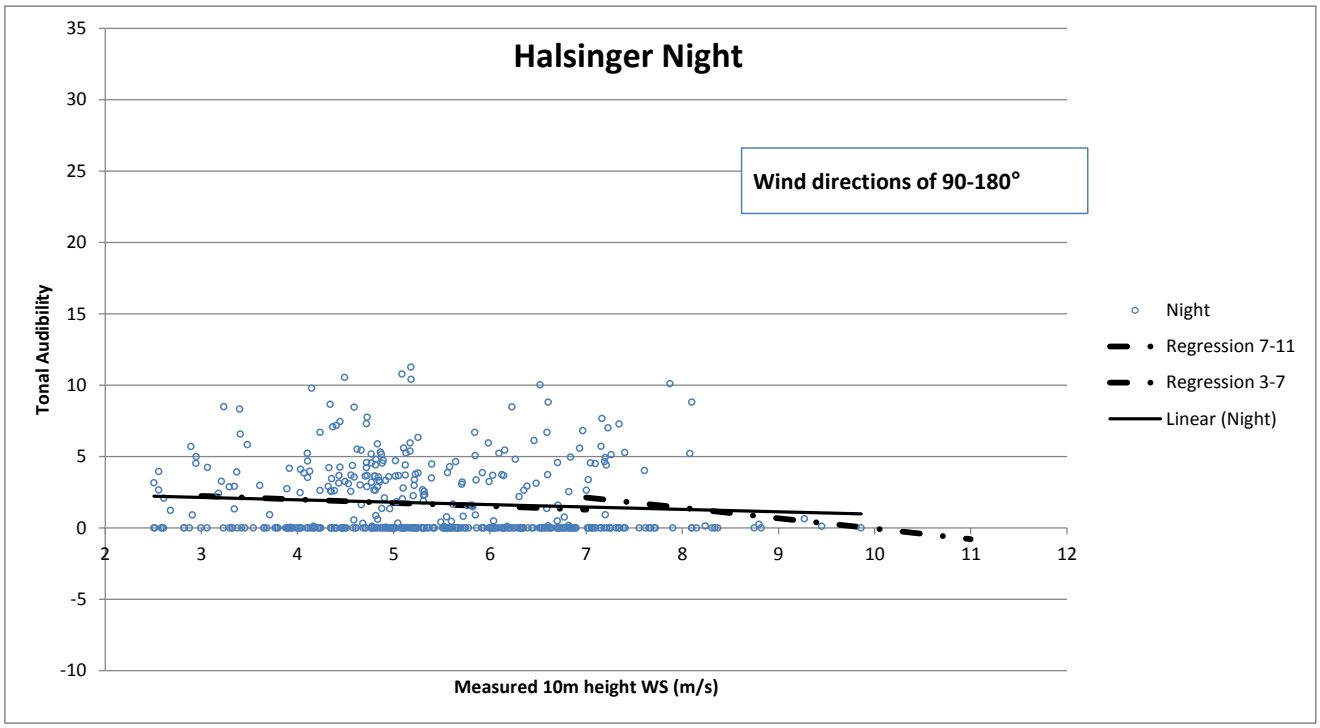
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	1.9	1.9	1.8	1.7	-	-	-	-
Bin Analysis	0.0	2.4	1.7	1.7	2.0	0.0	1.5	-	-
Linear Regression 3-7,7-11	-	2.0	1.8	1.7	2.6	-	-	-	-
Average 3-7, 7-11	1.8				1.7				
Overall Average	1.8								



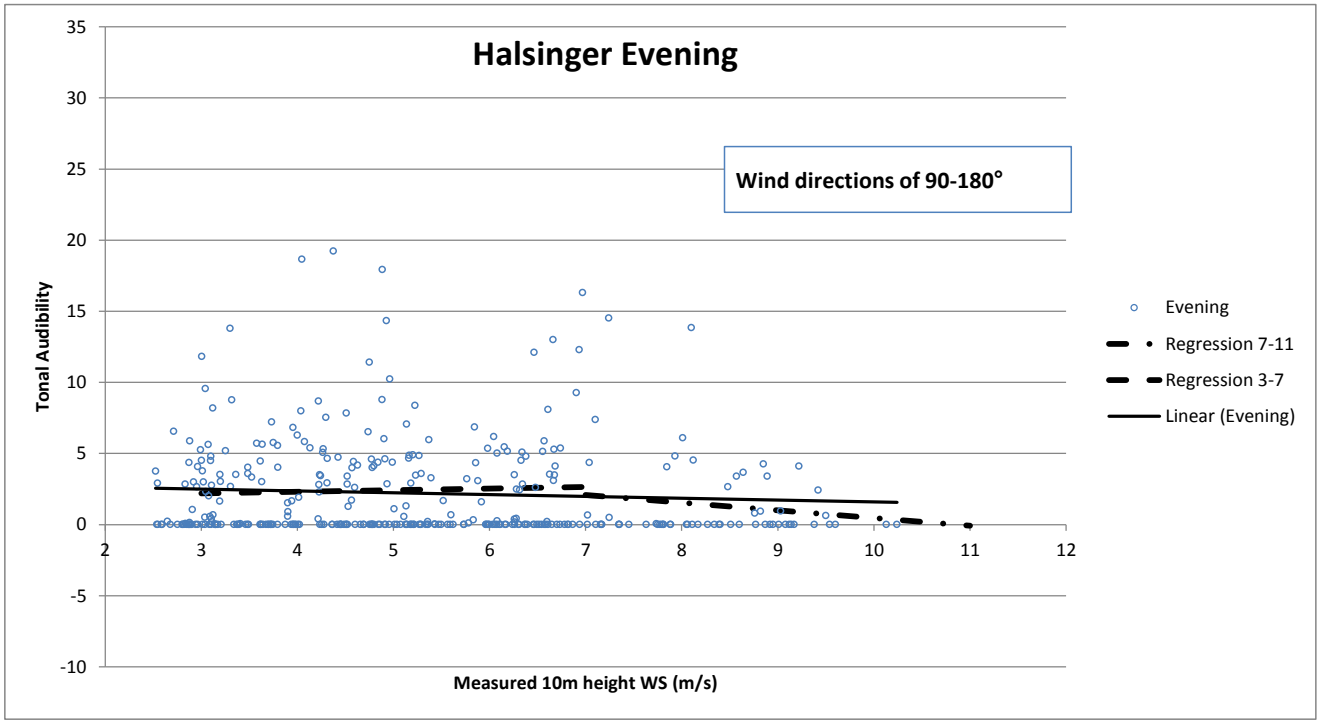
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.1	1.7	0.0	0.0	0.0	-	-	-	-
Bin Analysis	2.0	1.9	0.0	0.0	0.0	0.0	-	-	-
Linear Regression 3-7,7-11	2.1	1.7	0.0	0.0	0.0	-	-	-	-
Average 3-7, 7-11	1.5				0.0				
Overall Average	0.0								



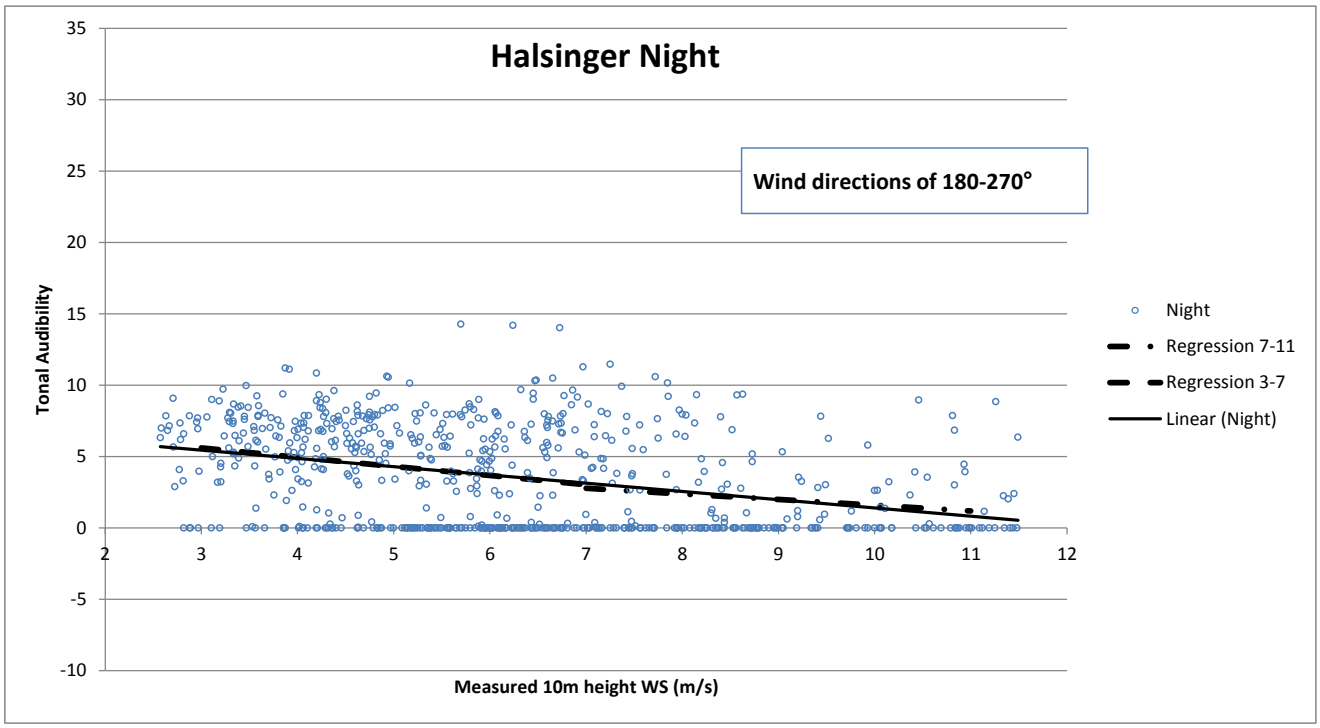
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.0	1.8	1.6	0.0	0.0	0.0	-	-	-
Bin Analysis	1.8	1.7	2.6	0.0	0.0	0.0	0.0	-	-
Linear Regression 3-7,7-11	1.9	1.8	1.8	1.8	1.8	0.0	-	-	-
Average 3-7, 7-11	1.8				0.0				
Overall Average	1.8								



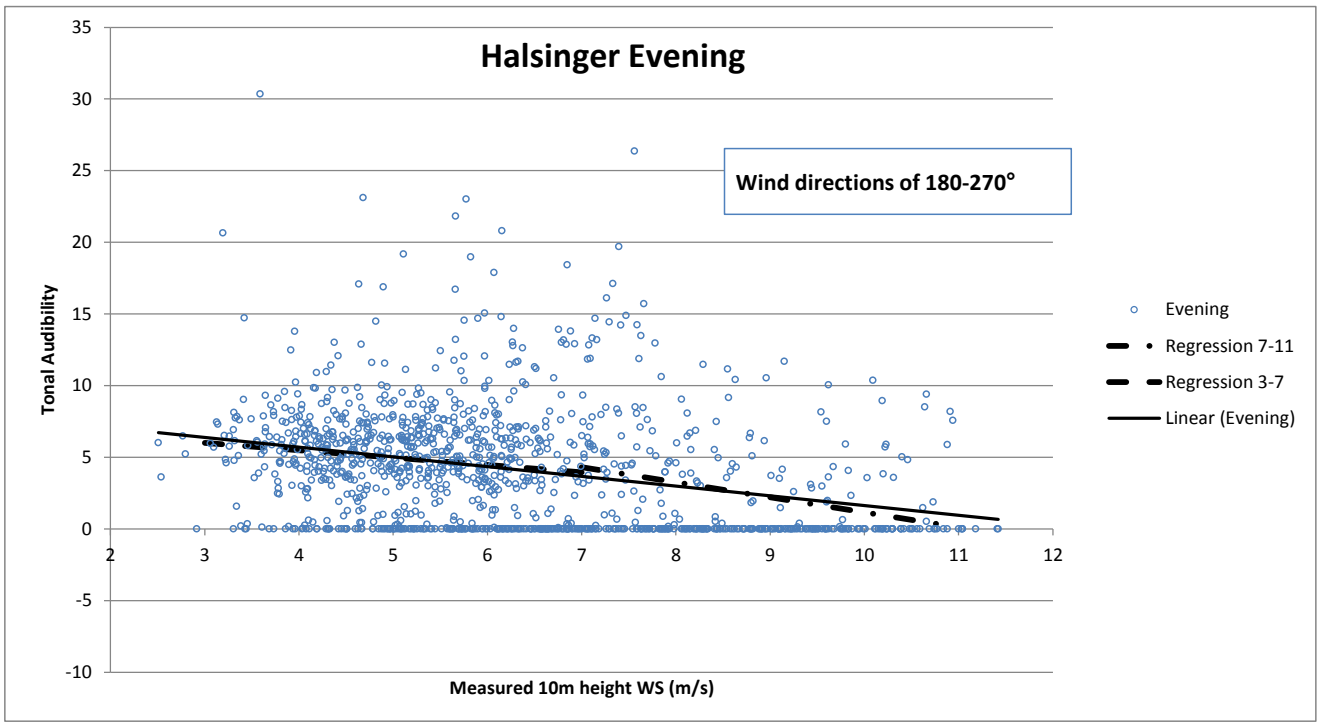
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	1.6	0.0	0.0	0.0	0.0	0.0	-	-	-
Bin Analysis	1.6	0.0	1.6	0.0	0.0	0.0	0.0	0.0	-
Linear Regression 3-7,7-11	1.7	0.0	0.0	0.0	1.6	0.0	-	-	-
Average 3-7, 7-11	0.0				0.0				
Overall Average	0.0								



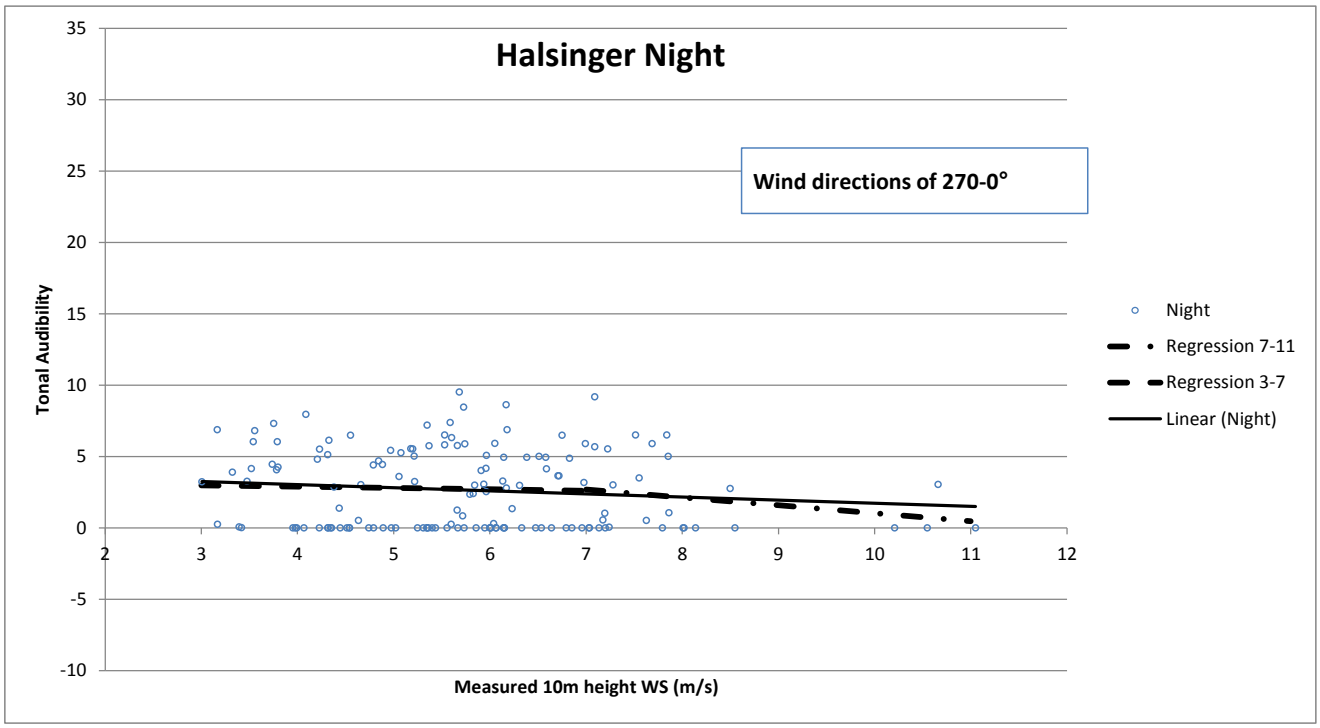
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	1.9	1.8	1.7	1.6	0.0	0.0	0.0	-	-
Bin Analysis	1.5	2.0	1.9	0.0	2.3	0.0	0.0	0.0	-
Linear Regression 3-7,7-11	1.6	1.7	1.8	1.9	2.0	0.0	0.0	-	-
Average 3-7, 7-11	1.8				0.0				
Overall Average	0.0								



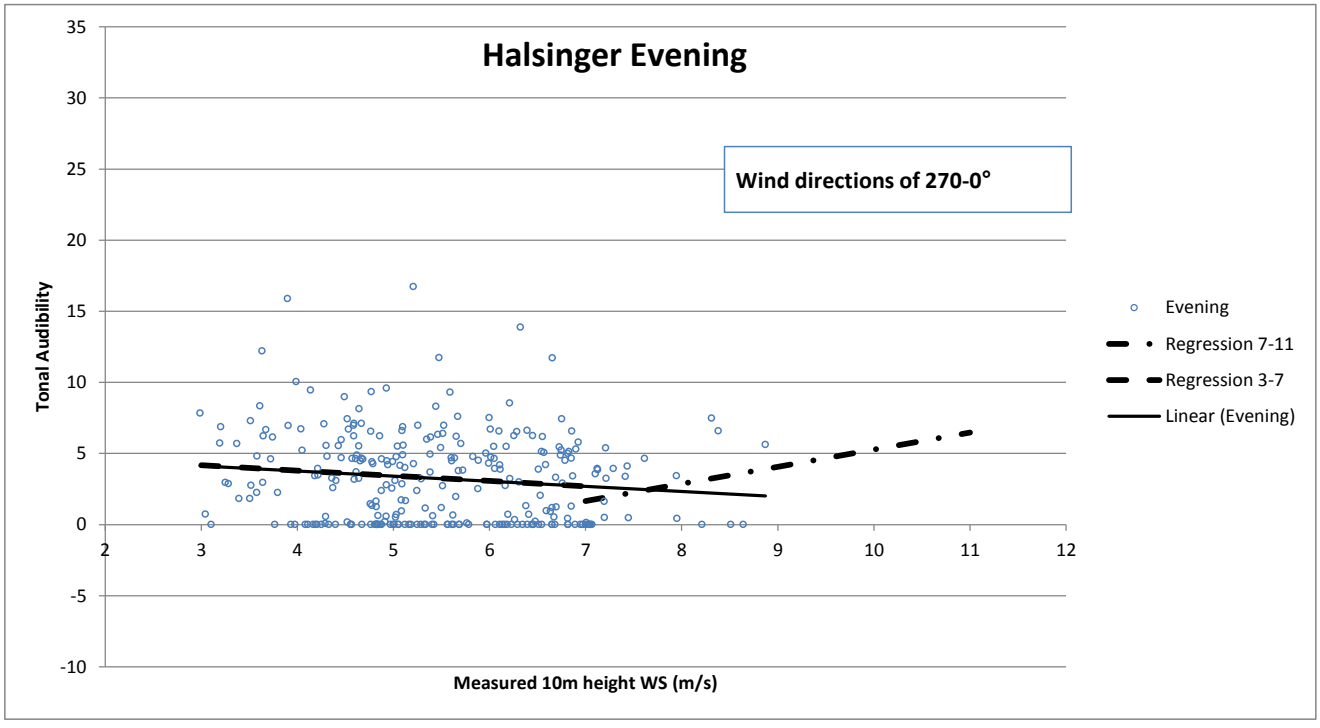
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	4.2	3.7	3.3	2.8	2.4	1.9	0.0	0.0	0.0
Bin Analysis	4.5	3.7	3.2	2.5	2.7	1.8	0.0	0.0	0.0
Linear Regression 3-7,7-11	4.3	3.8	3.3	2.8	2.3	1.8	0.0	0.0	0.0
Average 3-7, 7-11	3.3				1.6				
Overall Average	2.7								



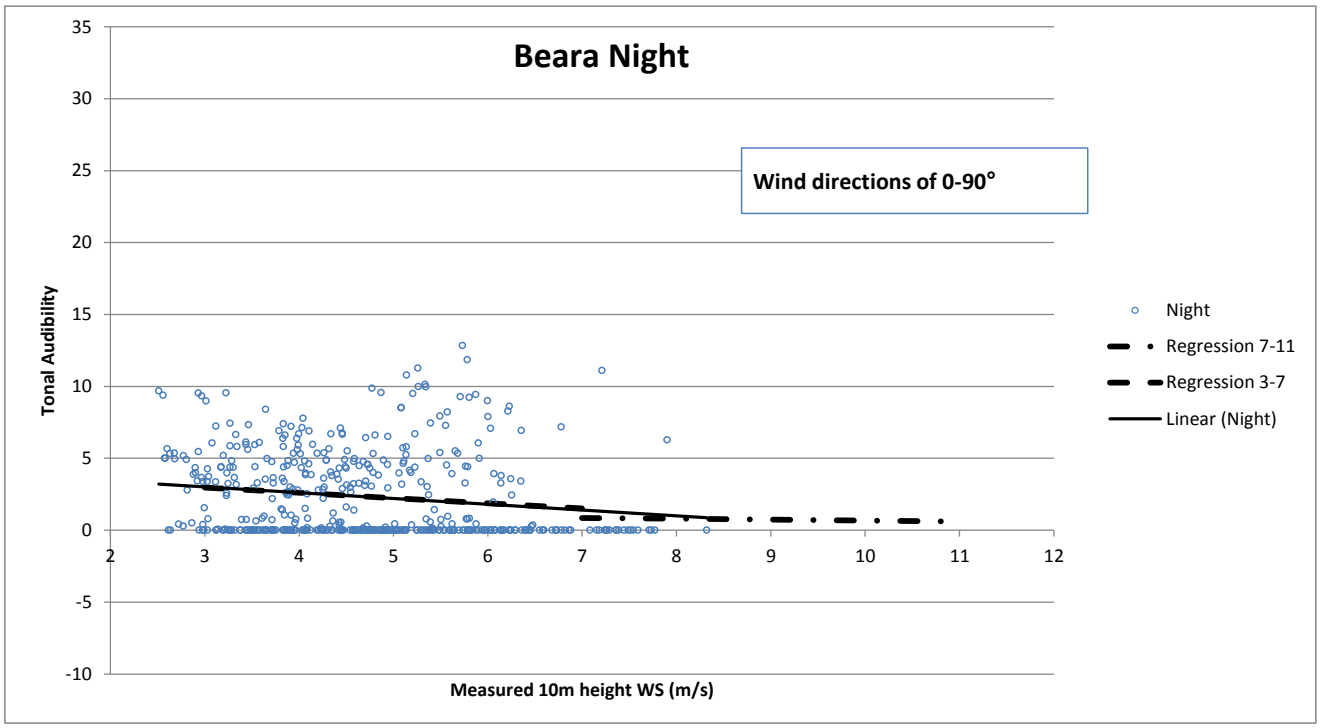
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	4.9	4.4	3.9	3.3	2.8	2.3	1.7	0.0	0.0
Bin Analysis	4.4	4.2	3.7	3.7	3.2	2.1	0.0	0.0	0.0
Linear Regression 3-7,7-11	4.6	4.2	3.8	3.4	3.3	2.5	1.7	0.0	0.0
Average 3-7, 7-11	3.7				2.0				
Overall Average	3.2								



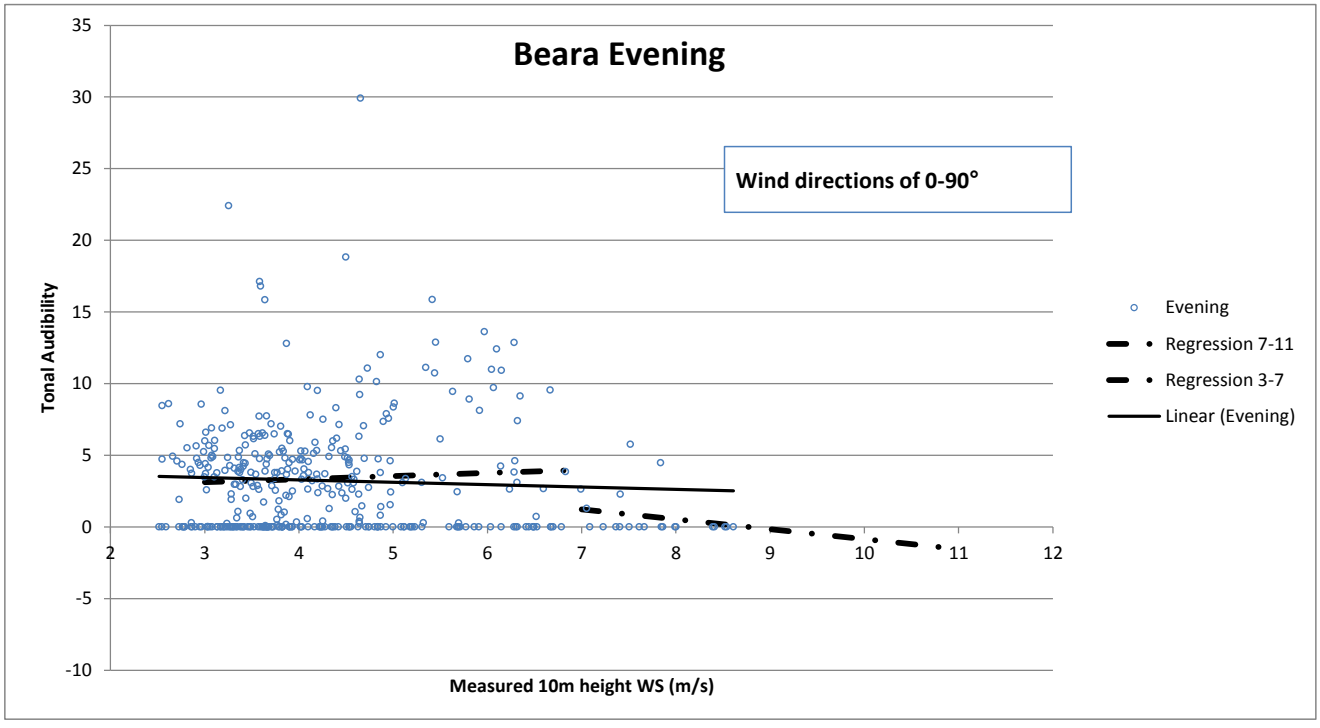
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	2.3	2.1	2.0	1.8	1.6	-	-	-
Bin Analysis	1.9	2.3	1.8	2.2	2.0	2.0	0.0	0.0	0.0
Linear Regression 3-7,7-11	-	2.2	2.1	2.0	2.0	1.6	-	-	-
Average 3-7, 7-11	2.1				1.6				
Overall Average	2.0								



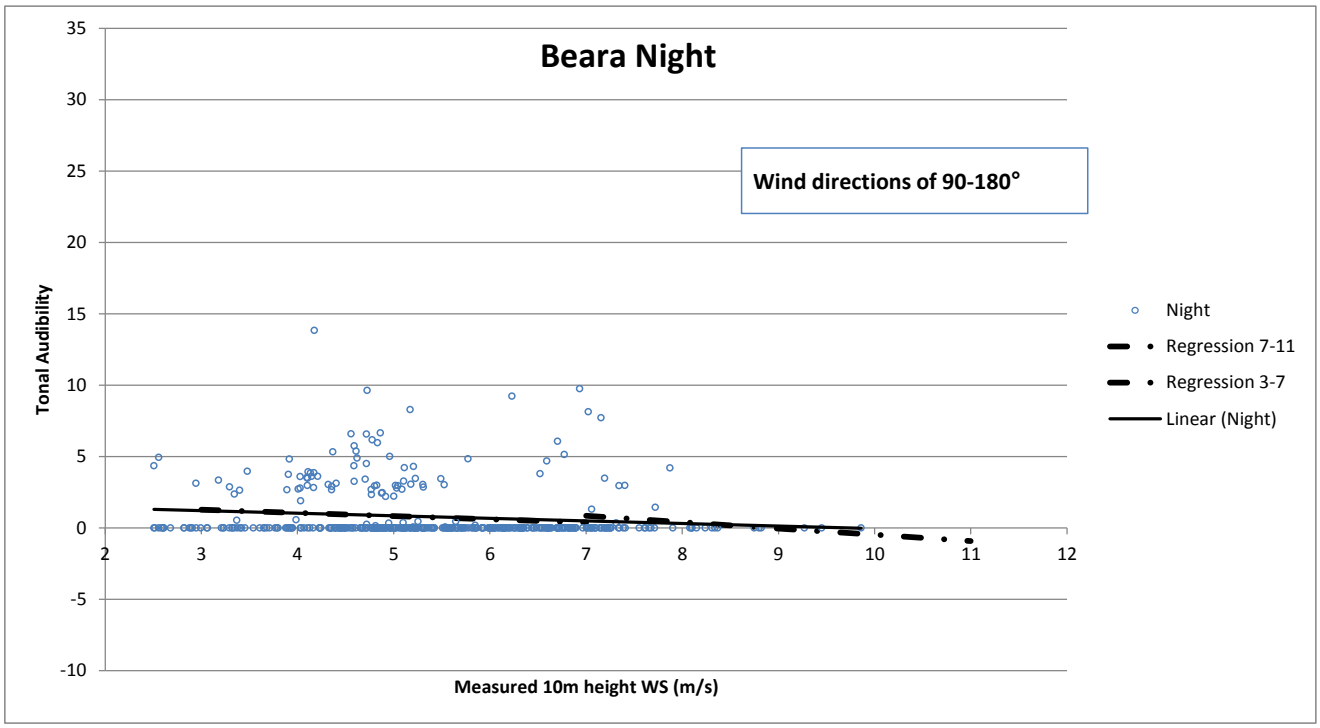
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	2.9	2.6	2.3	2.0	-	-	-	-
Bin Analysis	2.9	3.1	2.4	2.4	2.0	2.9	0.0	-	-
Linear Regression 3-7,7-11	-	2.9	2.6	2.3	2.0	-	-	-	-
Average 3-7, 7-11	2.5				1.6				
Overall Average	2.5								



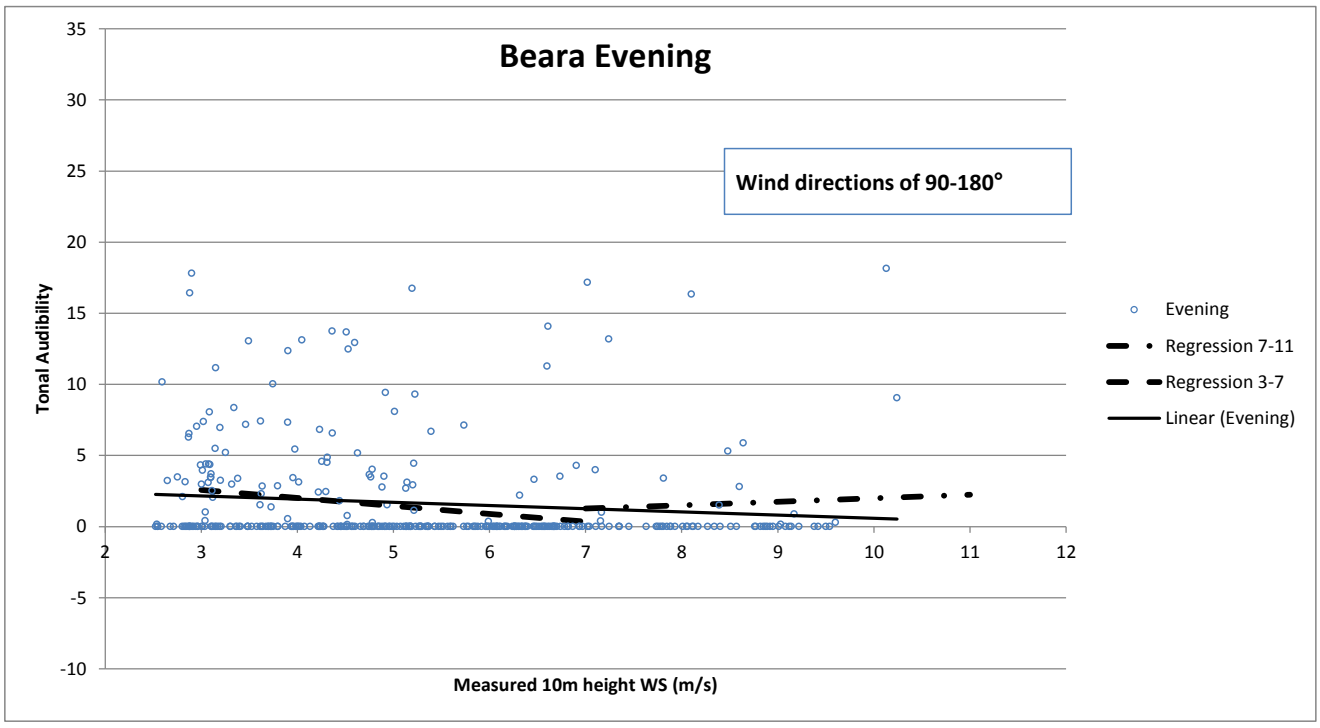
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.3	2.0	1.7	0.0	0.0	-	-	-	-
Bin Analysis	2.4	1.8	1.7	1.6	0.0	0.0	-	-	-
Linear Regression 3-7,7-11	2.2	2.0	1.7	0.0	0.0	-	-	-	-
Average 3-7, 7-11	1.8				0.0				
Overall Average	1.8								



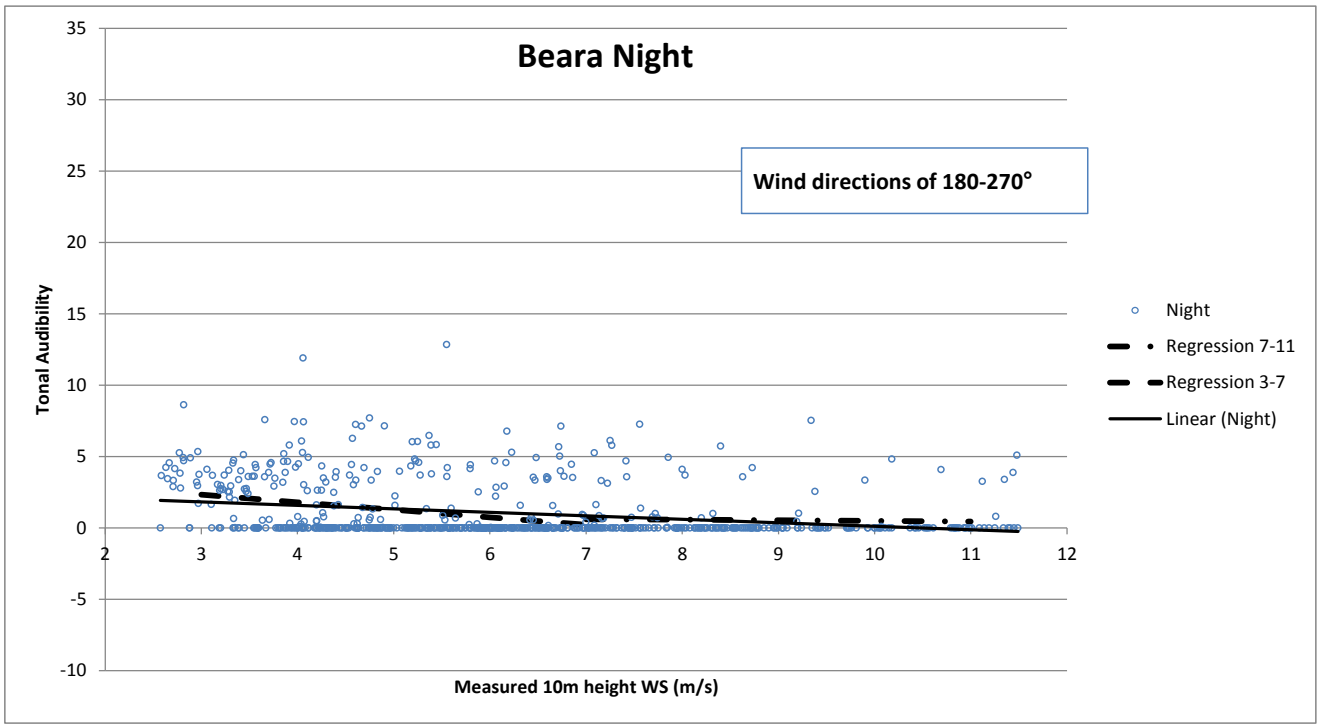
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.6	2.5	2.4	2.2	2.1	2.0	-	-	-
Bin Analysis	2.3	2.5	3.0	3.1	0.0	0.0	0.0	-	-
Linear Regression 3-7,7-11	2.4	2.5	2.7	2.9	3.0	0.0	-	-	-
Average 3-7, 7-11	2.6				0.0				
Overall Average	2.5								



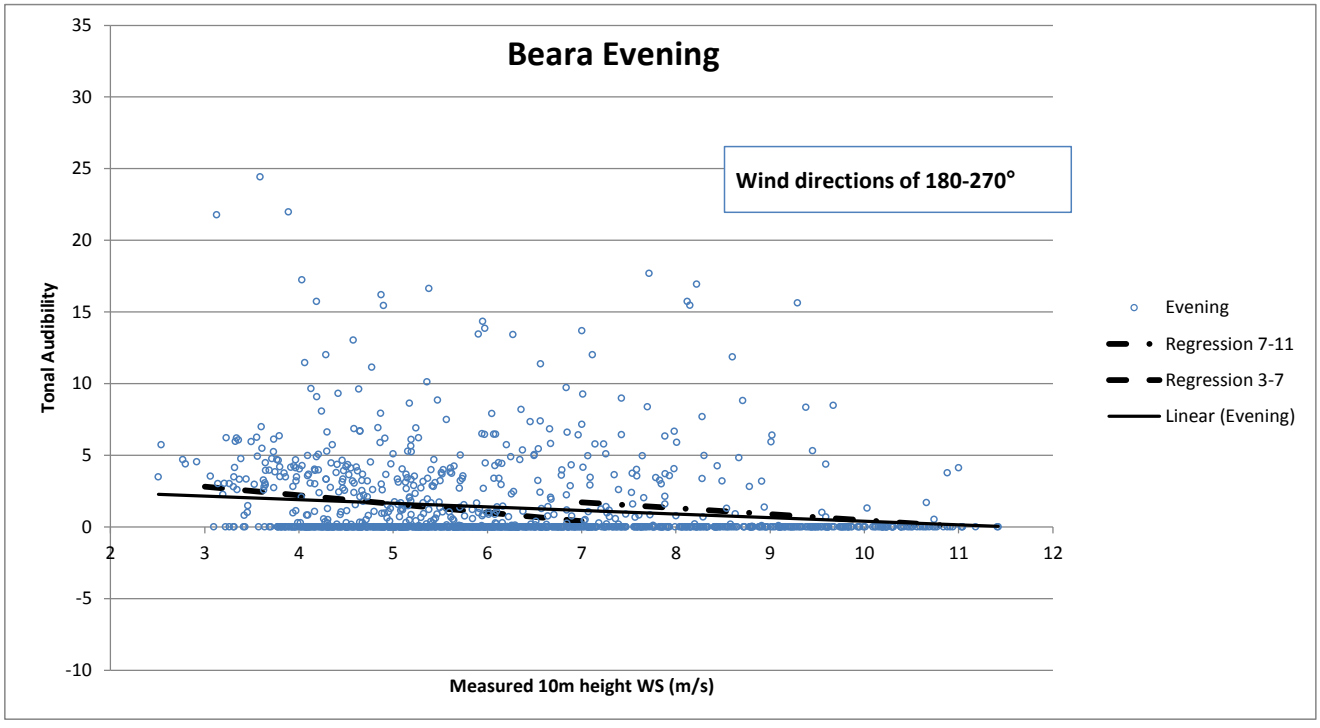
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-
Bin Analysis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
Linear Regression 3-7,7-11	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-
Average 3-7, 7-11	0.0				0.0				
Overall Average	0.0								



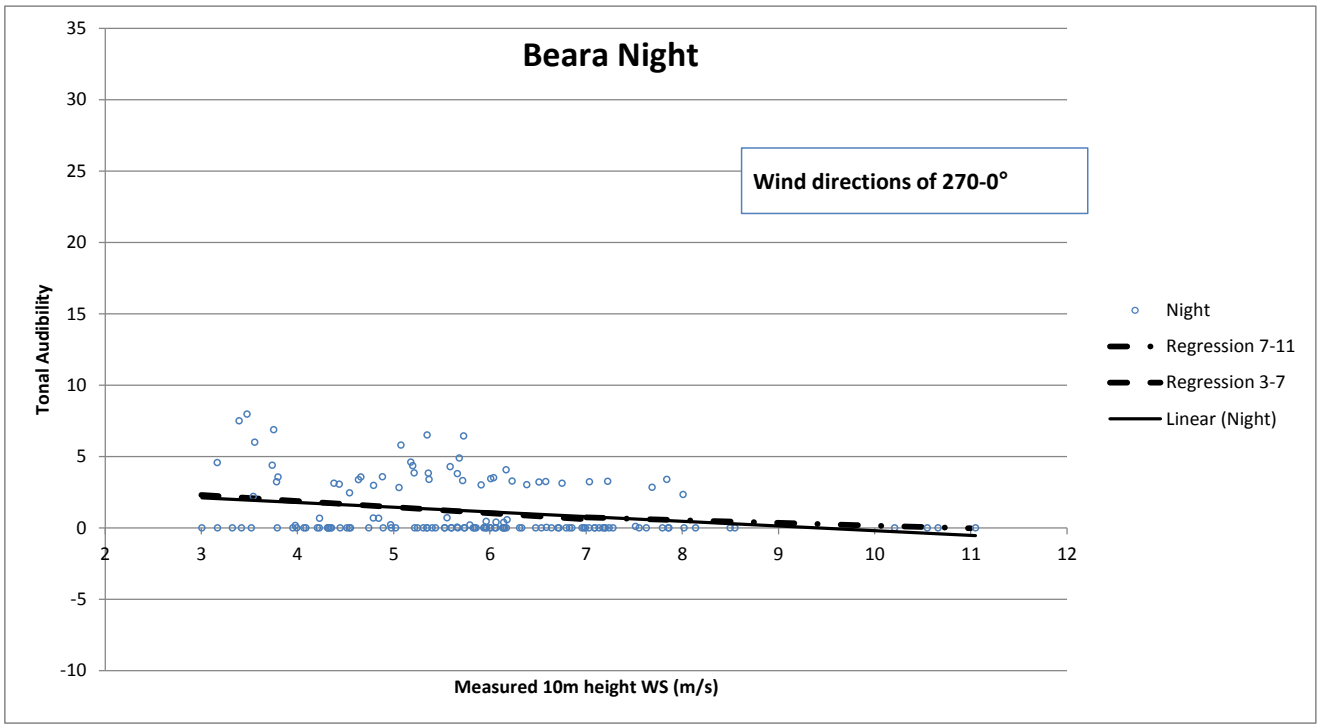
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	1.6	0.0	0.0	0.0	0.0	0.0	0.0	-	-
Bin Analysis	2.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	-
Linear Regression 3-7,7-11	1.9	1.5	0.0	0.0	0.0	0.0	0.0	-	-
Average 3-7, 7-11	0.0				0.0				
Overall Average	0.0								



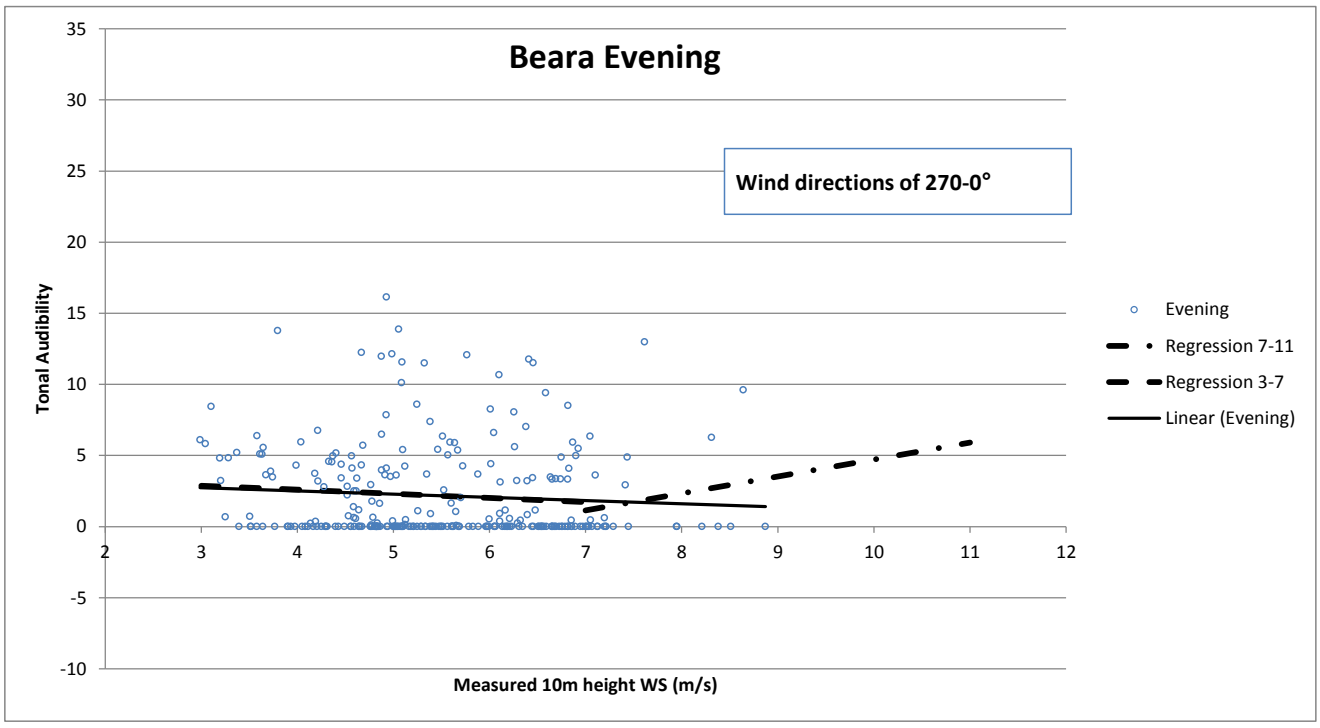
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bin Analysis	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Linear Regression 3-7,7-11	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average 3-7, 7-11	0.0				0.0				
Overall Average	0.0								



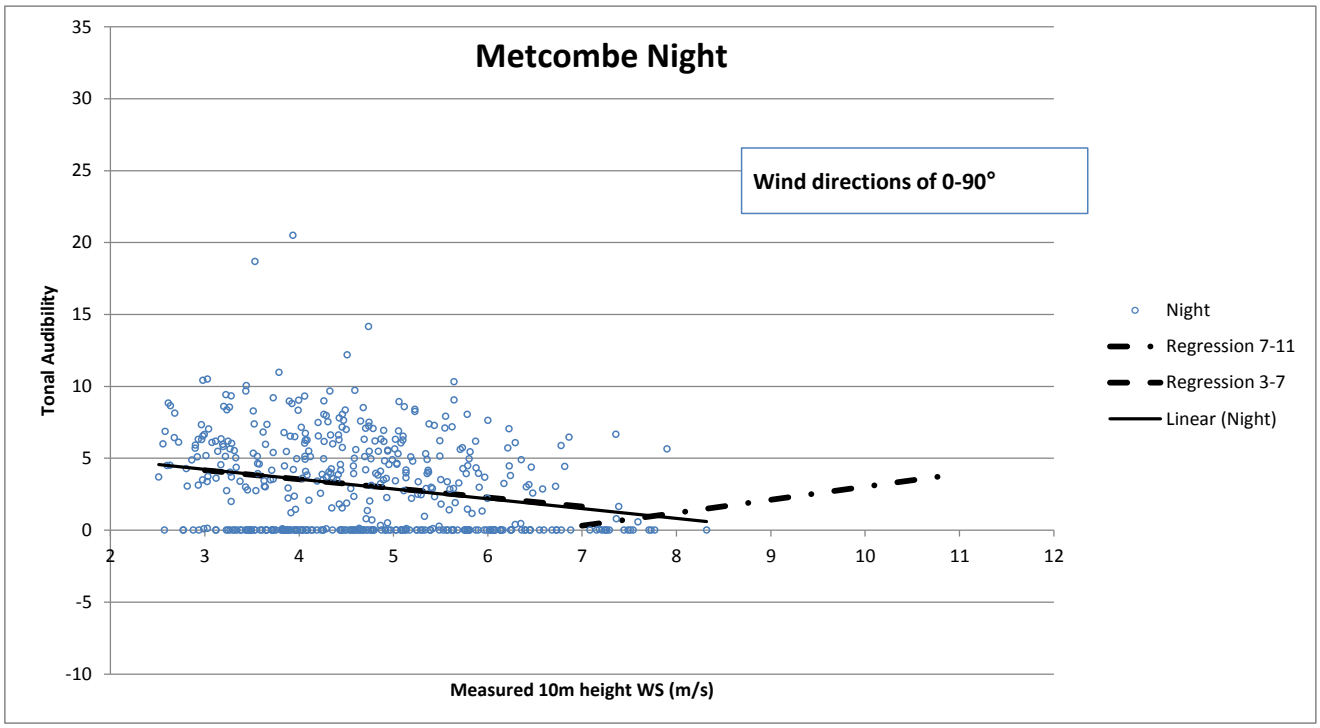
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bin Analysis	2.7	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Linear Regression 3-7,7-11	2.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average 3-7, 7-11	0.0				0.0				
Overall Average	0.0								



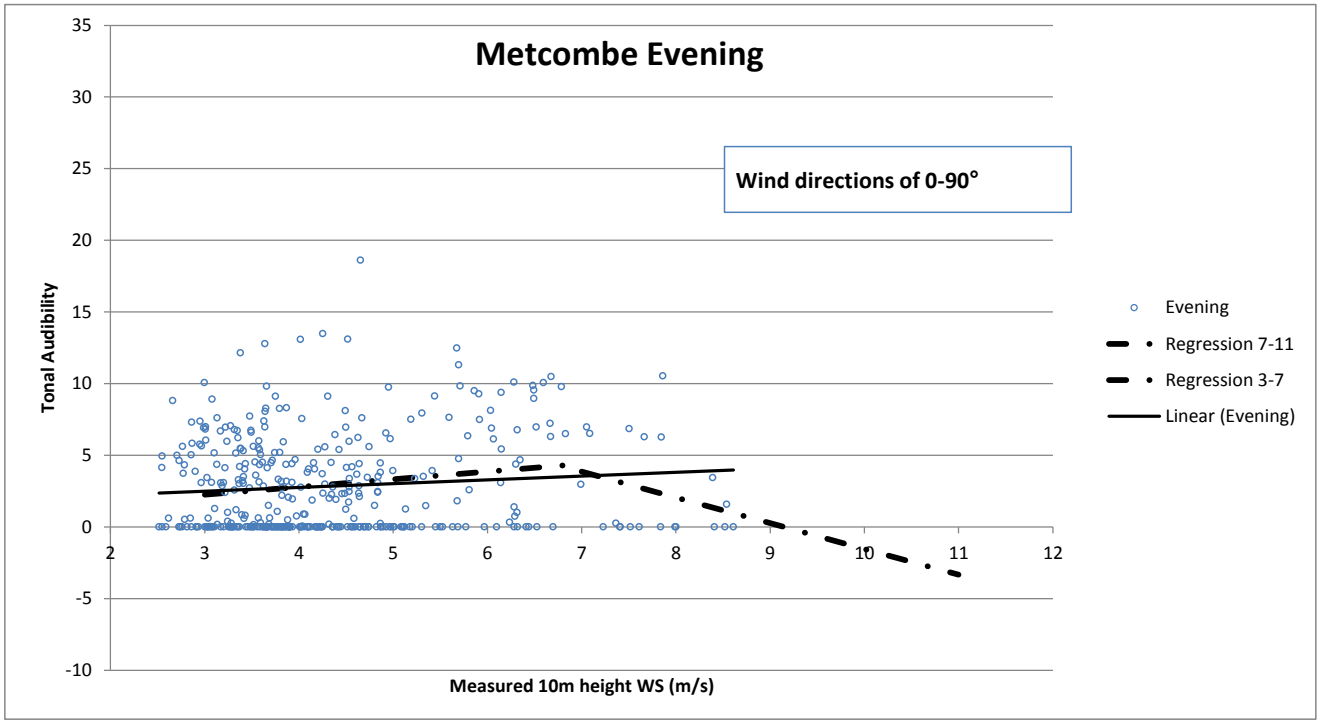
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	0.0	0.0	0.0	0.0	0.0	-	-	-
Bin Analysis	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Linear Regression 3-7,7-11	-	0.0	0.0	0.0	0.0	0.0	-	-	-
Average 3-7, 7-11	0.0				0.0				
Overall Average	0.0								



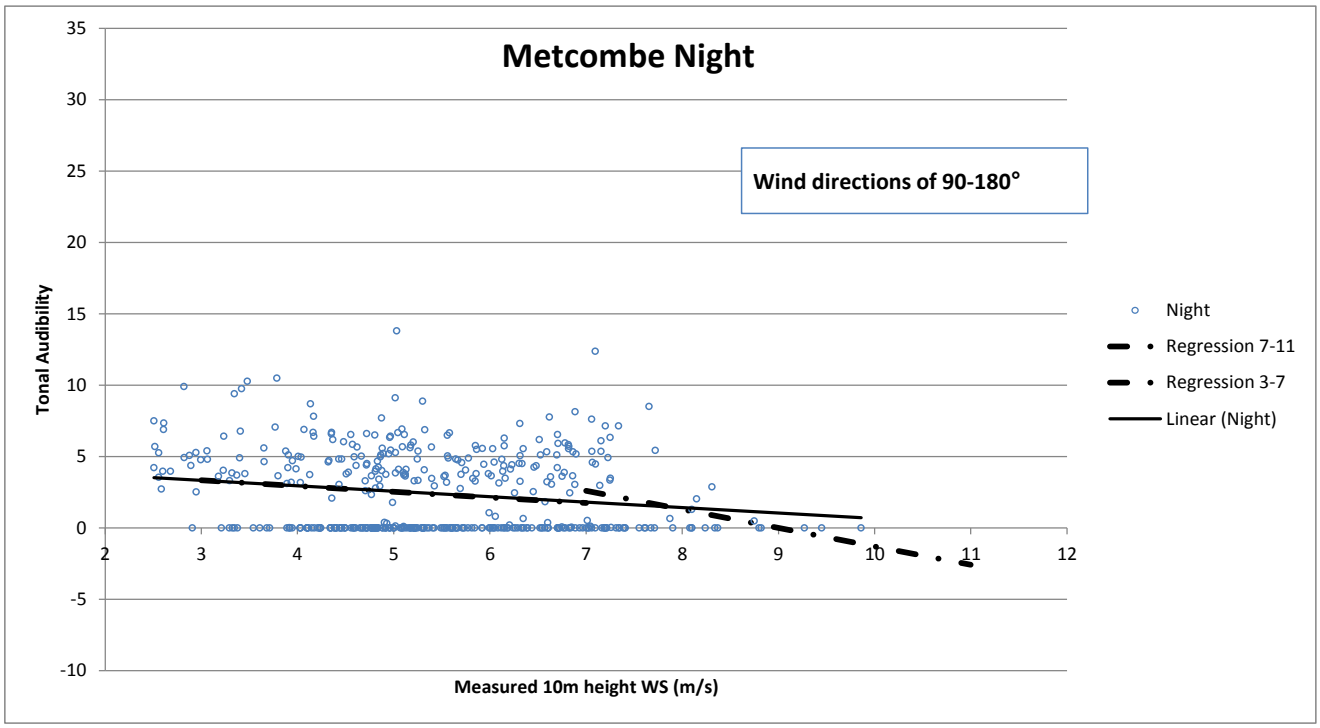
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	1.9	1.7	1.5	0.0	-	-	-	-
Bin Analysis	3.3	1.7	1.7	1.7	0.0	2.4	2.4	-	-
Linear Regression 3-7,7-11	-	2.0	1.7	1.5	0.0	-	-	-	-
Average 3-7, 7-11	1.7				0.0				
Overall Average	1.6								



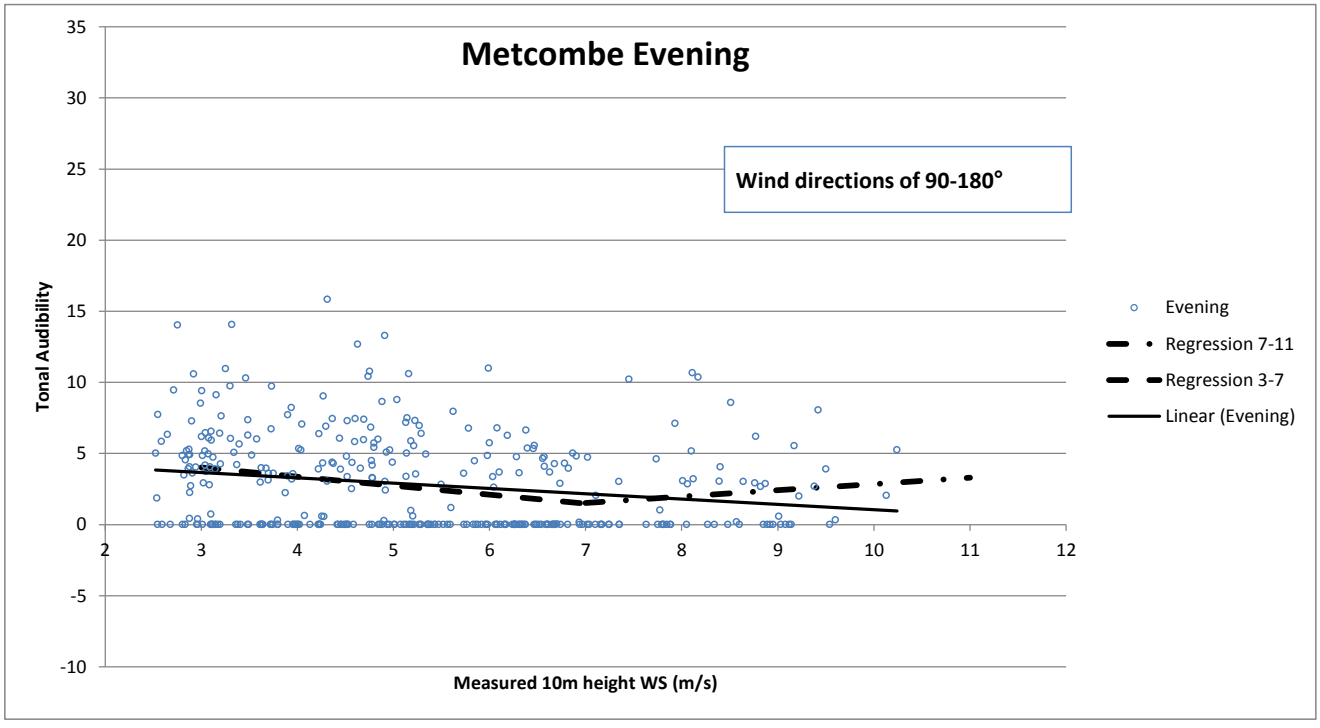
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	3.2	2.7	2.2	1.6	0.0	-	-	-	-
Bin Analysis	3.1	2.6	2.4	1.6	0.0	0.0	-	-	-
Linear Regression 3-7,7-11	3.2	2.7	2.2	1.7	0.0	-	-	-	-
Average 3-7, 7-11	2.4				0.0				
Overall Average	2.3								



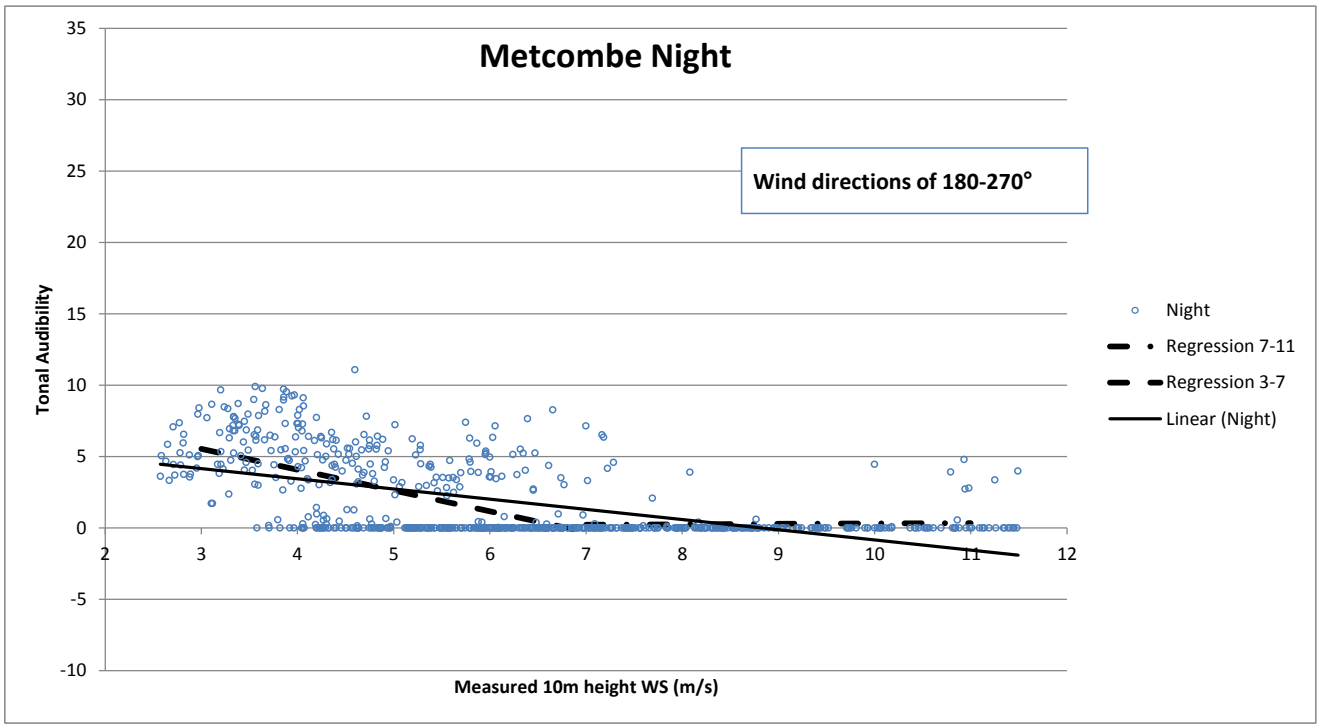
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	1.9	2.1	2.3	2.5	2.7	2.9	-	-	-
Bin Analysis	2.2	1.7	2.0	3.5	3.5	2.3	0.0	-	-
Linear Regression 3-7,7-11	1.7	2.1	2.5	3.0	3.4	1.5	-	-	-
Average 3-7, 7-11	2.2				1.8				
Overall Average	2.2								



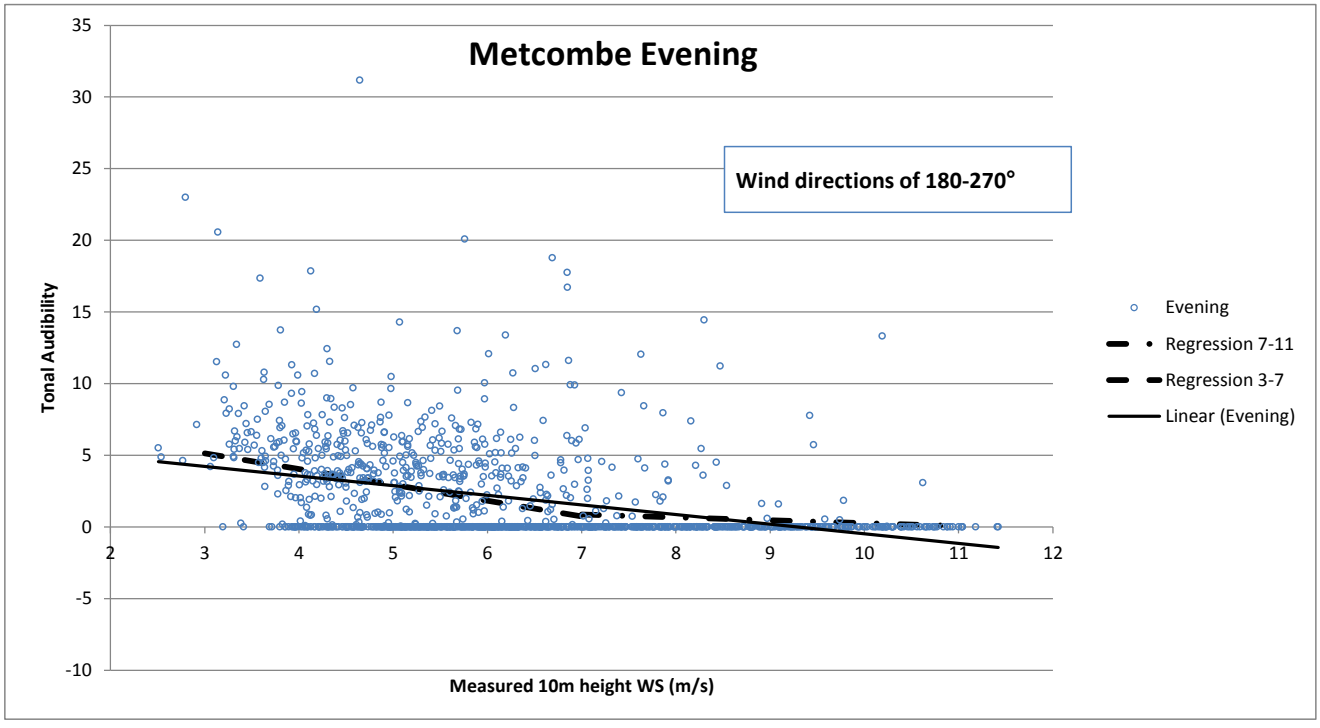
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.5	2.2	1.9	1.6	0.0	0.0	-	-	-
Bin Analysis	3.5	1.7	1.7	1.6	1.8	0.0	0.0	0.0	-
Linear Regression 3-7,7-11	2.5	2.2	1.9	1.6	2.0	0.0	-	-	-
Average 3-7, 7-11	1.9				0.0				
Overall Average	1.8								



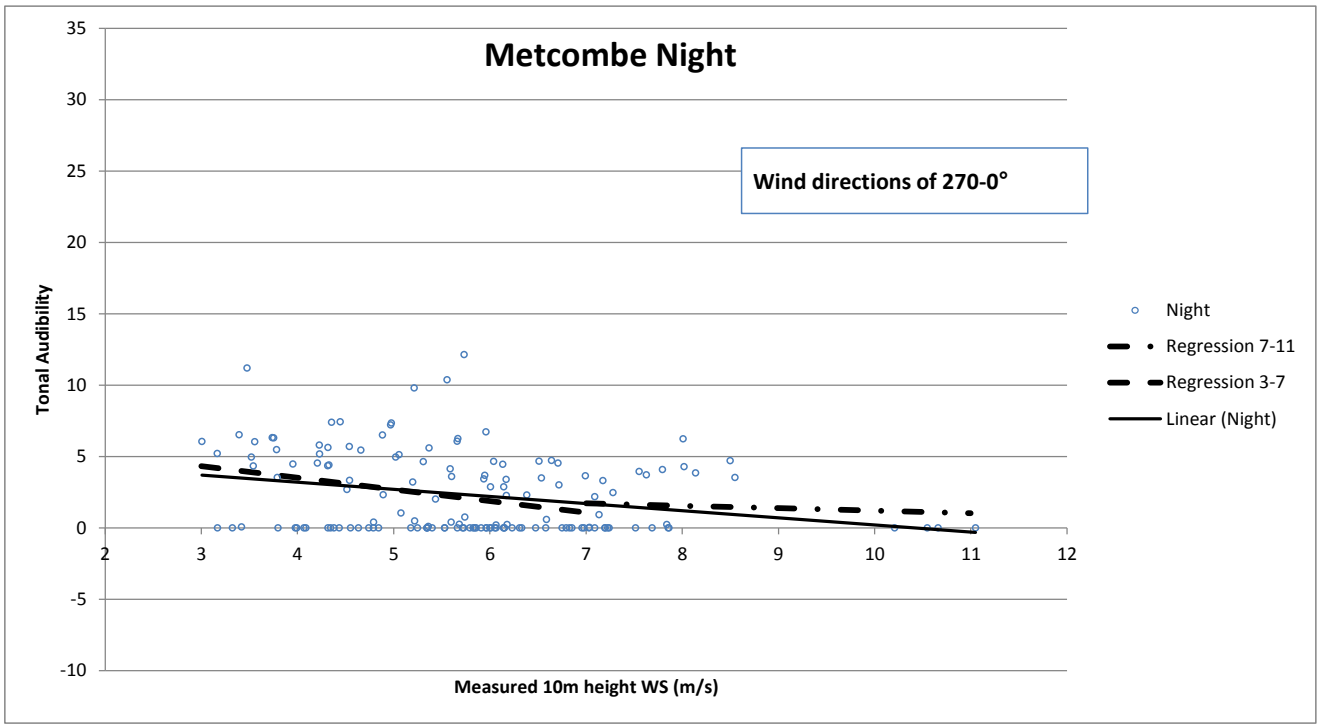
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.8	2.5	2.2	1.9	1.6	0.0	0.0	-	-
Bin Analysis	3.2	2.0	2.5	0.0	0.0	1.8	1.6	1.7	-
Linear Regression 3-7,7-11	3.1	2.6	2.1	1.6	0.0	0.0	1.8	-	-
Average 3-7, 7-11	2.3				1.6				
Overall Average	0.0								



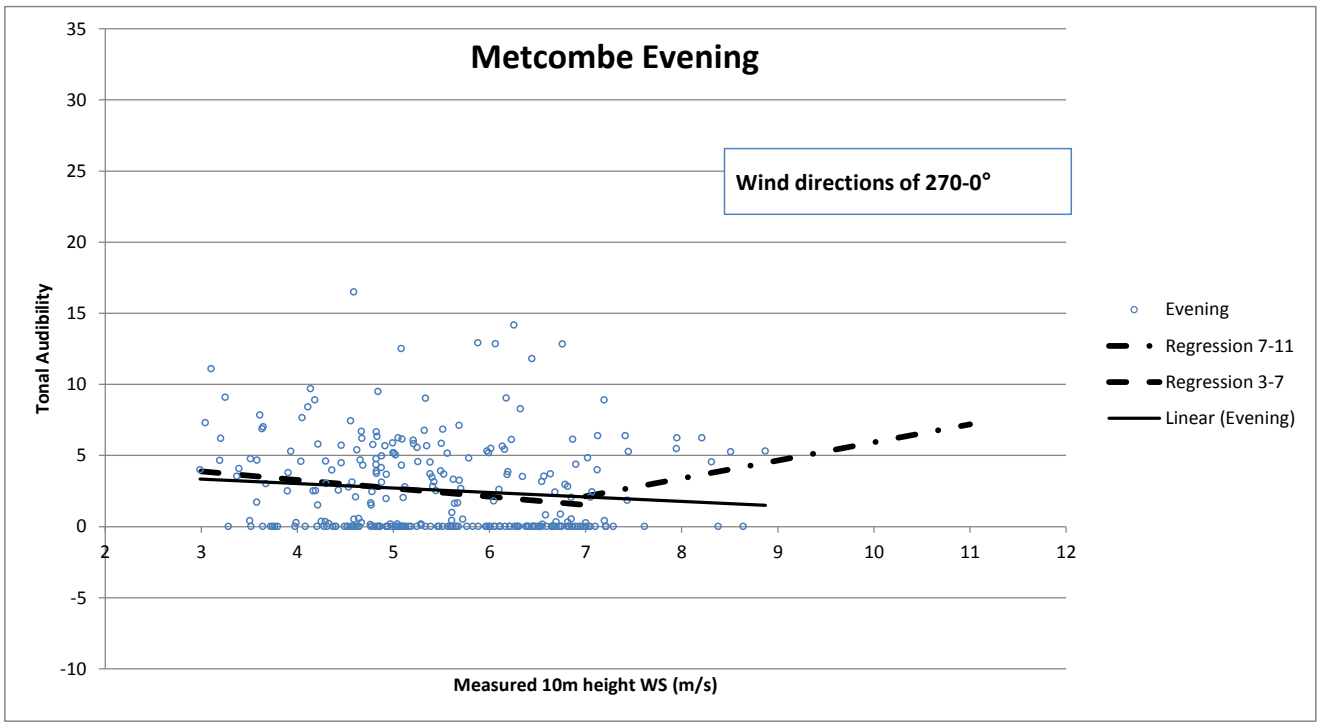
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	3.2	2.6	2.1	1.5	0.0	0.0	0.0	0.0	0.0
Bin Analysis	4.4	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Linear Regression 3-7,7-11	4.3	3.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Average 3-7, 7-11	2.0				0.0				
Overall Average	0.0								



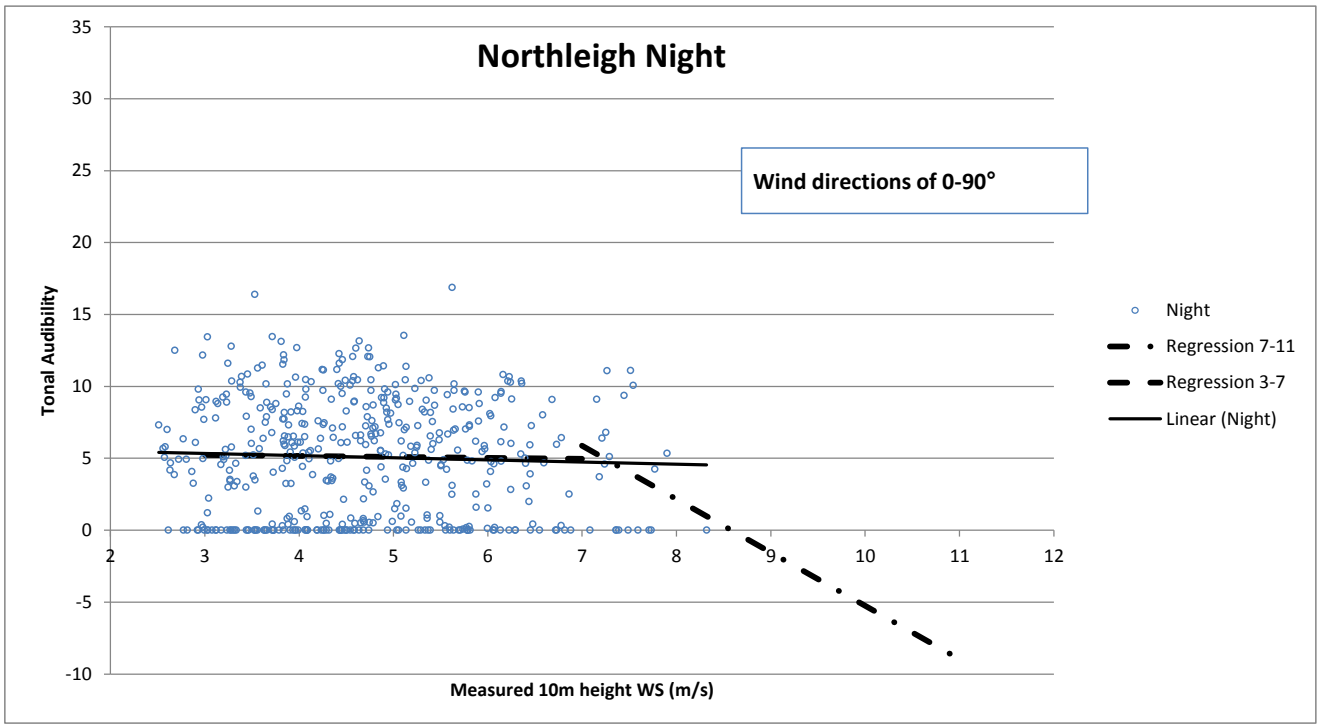
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	3.2	2.7	2.2	1.7	0.0	0.0	0.0	0.0	0.0
Bin Analysis	5.0	3.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Linear Regression 3-7,7-11	3.9	3.1	2.2	0.0	0.0	0.0	0.0	0.0	0.0
Average 3-7, 7-11	2.0				0.0				
Overall Average	1.5								



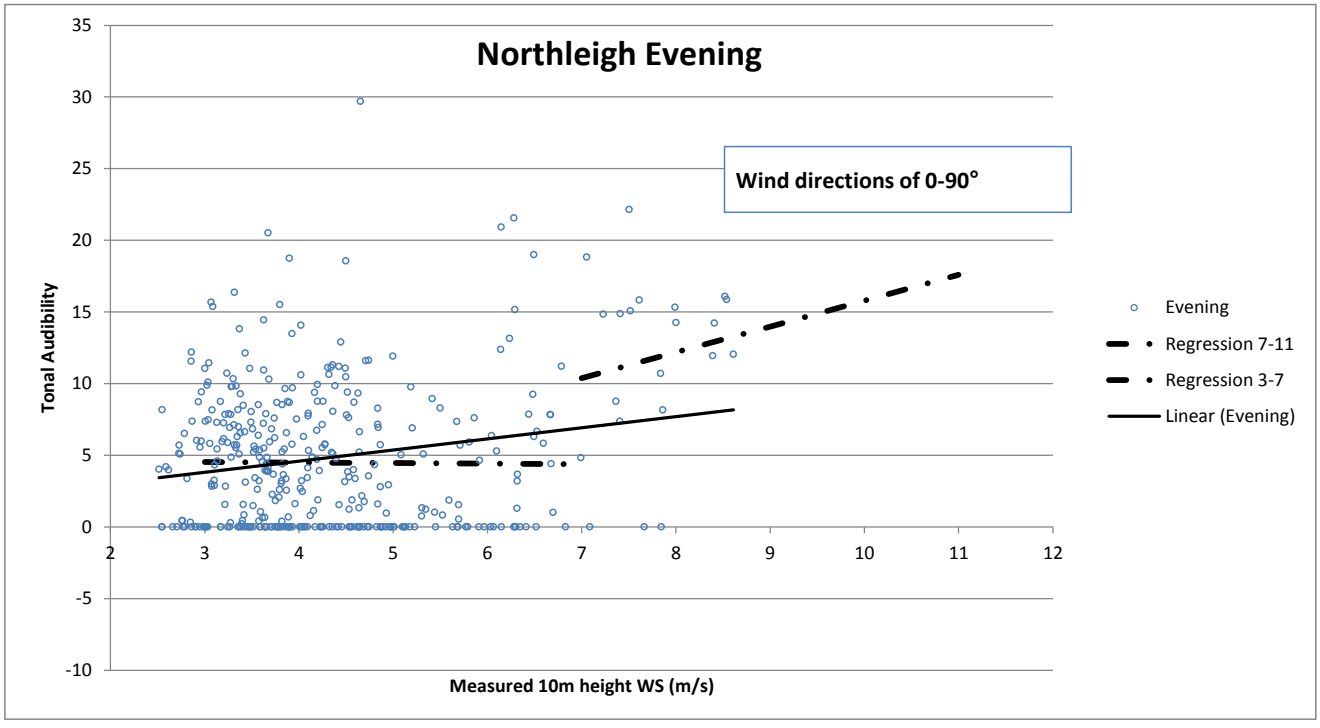
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	2.4	2.0	1.7	0.0	0.0	-	-	-
Bin Analysis	3.2	2.6	2.0	0.0	0.0	1.8	3.1	0.0	0.0
Linear Regression 3-7,7-11	-	2.7	2.0	0.0	0.0	0.0	-	-	-
Average 3-7, 7-11	1.9				0.0				
Overall Average	1.7								



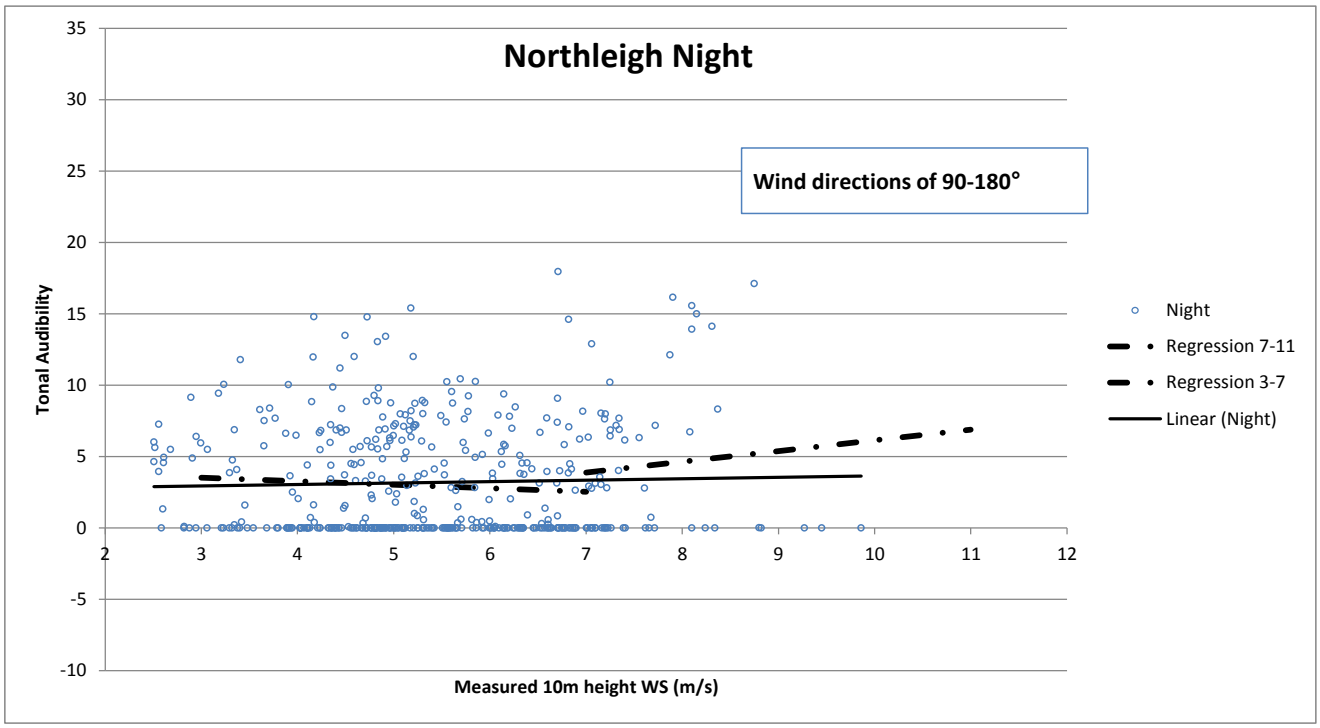
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	2.3	2.1	1.8	1.6	-	-	-	-
Bin Analysis	4.3	2.1	2.0	1.9	0.0	2.9	2.7	-	-
Linear Regression 3-7,7-11	-	2.5	2.0	1.6	1.6	-	-	-	-
Average 3-7, 7-11	1.9				0.0				
Overall Average	1.9								



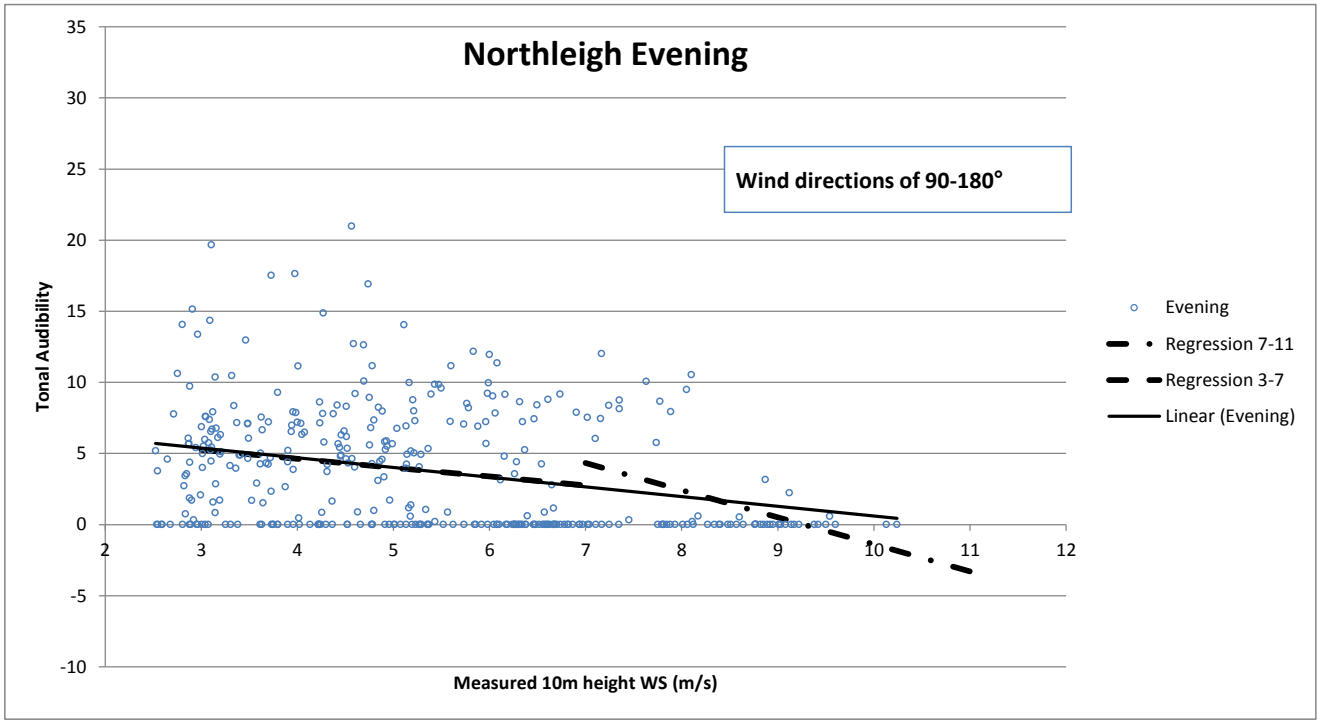
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	4.1	4.0	3.9	3.7	3.6	-	-	-	-
Bin Analysis	3.8	3.8	4.4	3.7	2.8	2.9	-	-	-
Linear Regression 3-7,7-11	4.0	4.0	3.9	3.9	4.5	-	-	-	-
Average 3-7, 7-11	3.9				3.2				
Overall Average	3.9								



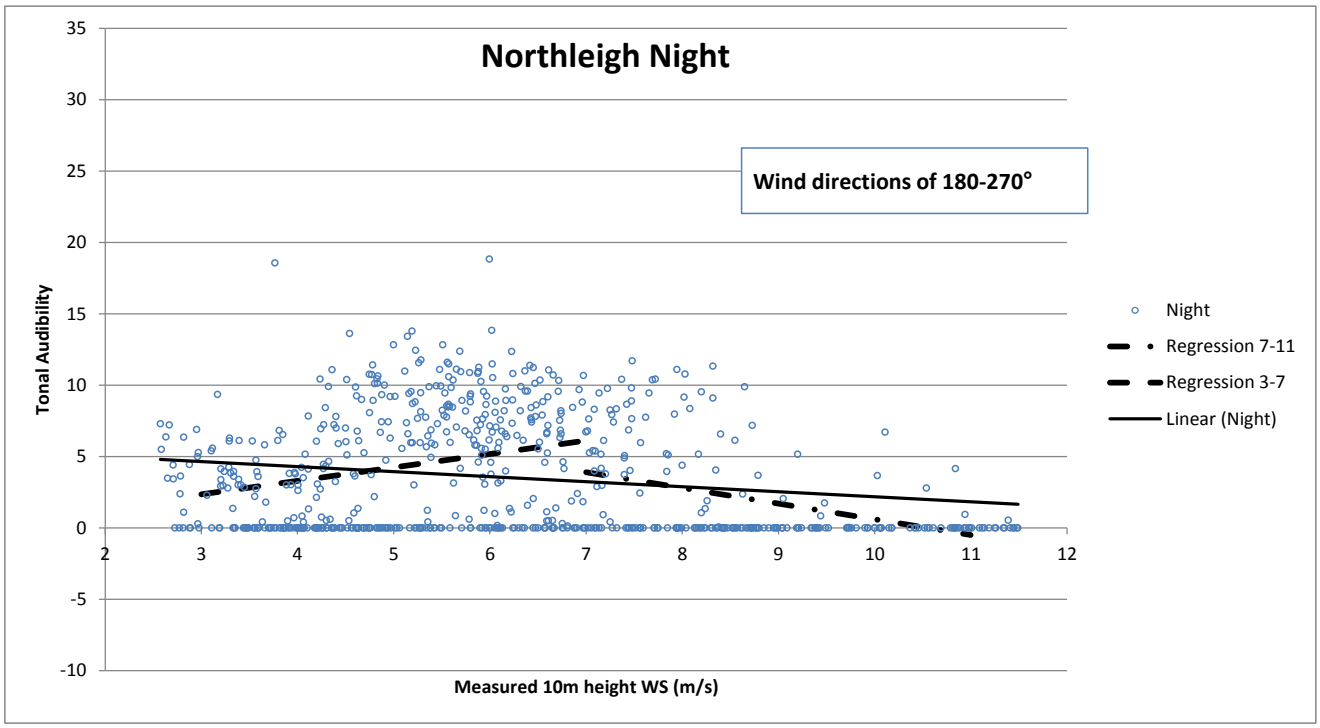
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.9	3.5	4.1	4.7	5.0	5.0	-	-	-
Bin Analysis	3.8	3.5	2.5	3.7	5.0	5.0	5.0	-	-
Linear Regression 3-7,7-11	3.5	3.4	3.4	3.4	5.0	5.0	-	-	-
Average 3-7, 7-11	3.4				5.0				
Overall Average	3.7								



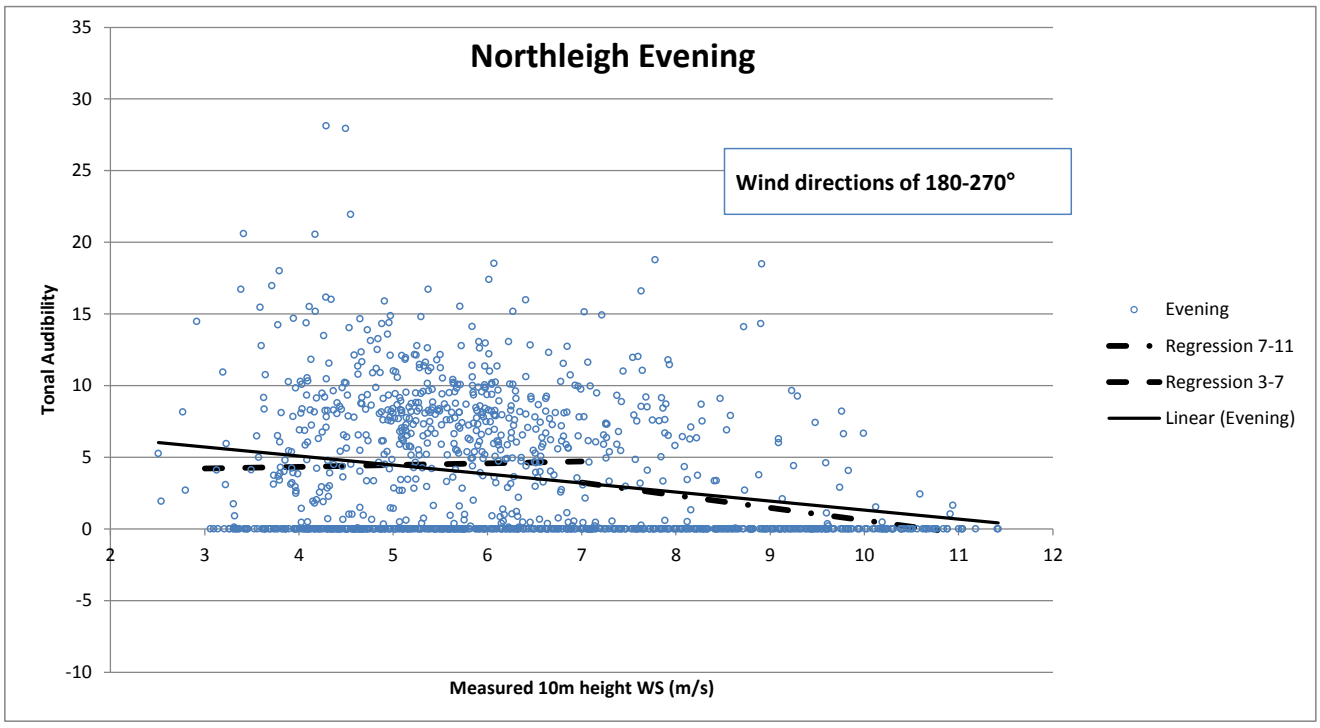
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.2	2.3	2.4	2.5	2.5	2.6	-	-	-
Bin Analysis	2.7	2.3	2.5	1.9	2.2	5.0	2.6	-	-
Linear Regression 3-7,7-11	2.7	2.5	2.3	2.1	3.0	3.5	-	-	-
Average 3-7, 7-11	2.3				3.3				
Overall Average	2.4								



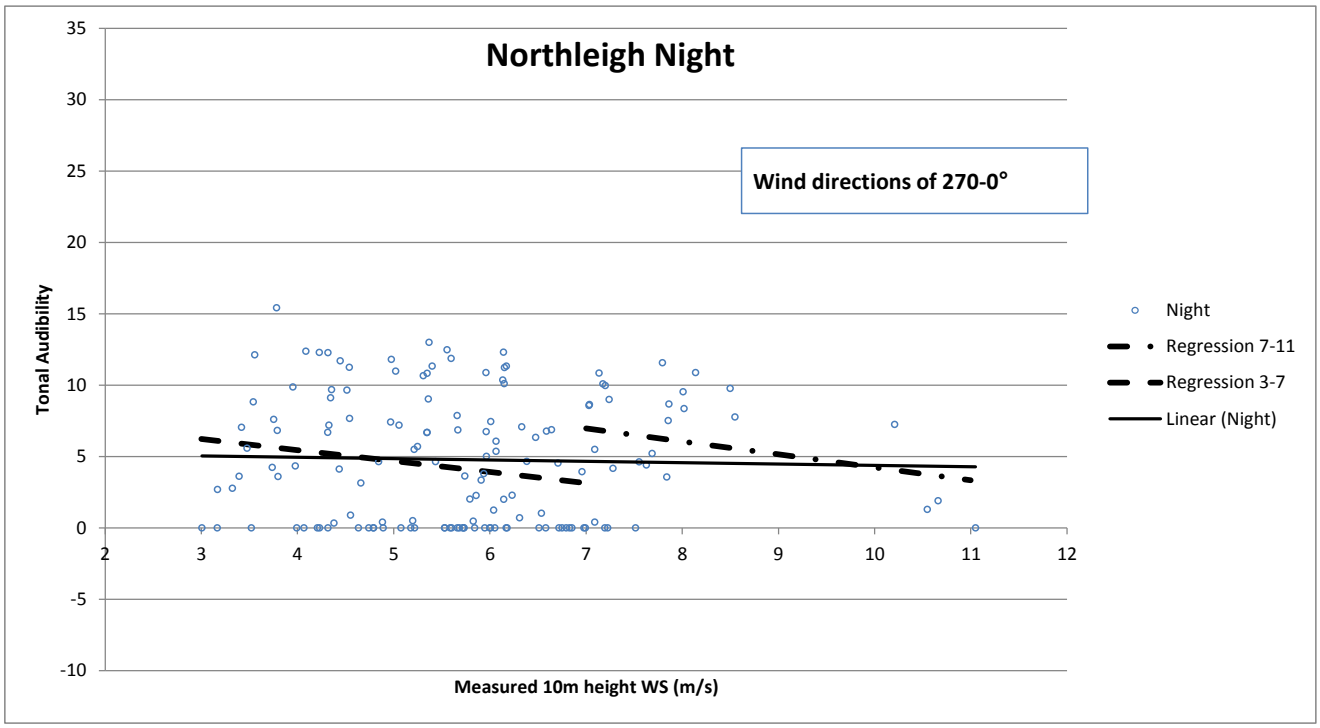
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	4.1	3.6	3.1	2.5	2.0	0.0	0.0	-	-
Bin Analysis	3.8	3.4	3.7	2.8	1.7	1.7	0.0	0.0	-
Linear Regression 3-7,7-11	4.0	3.5	3.1	2.6	3.3	1.8	0.0	-	-
Average 3-7, 7-11	3.2				0.0				
Overall Average	0.0								



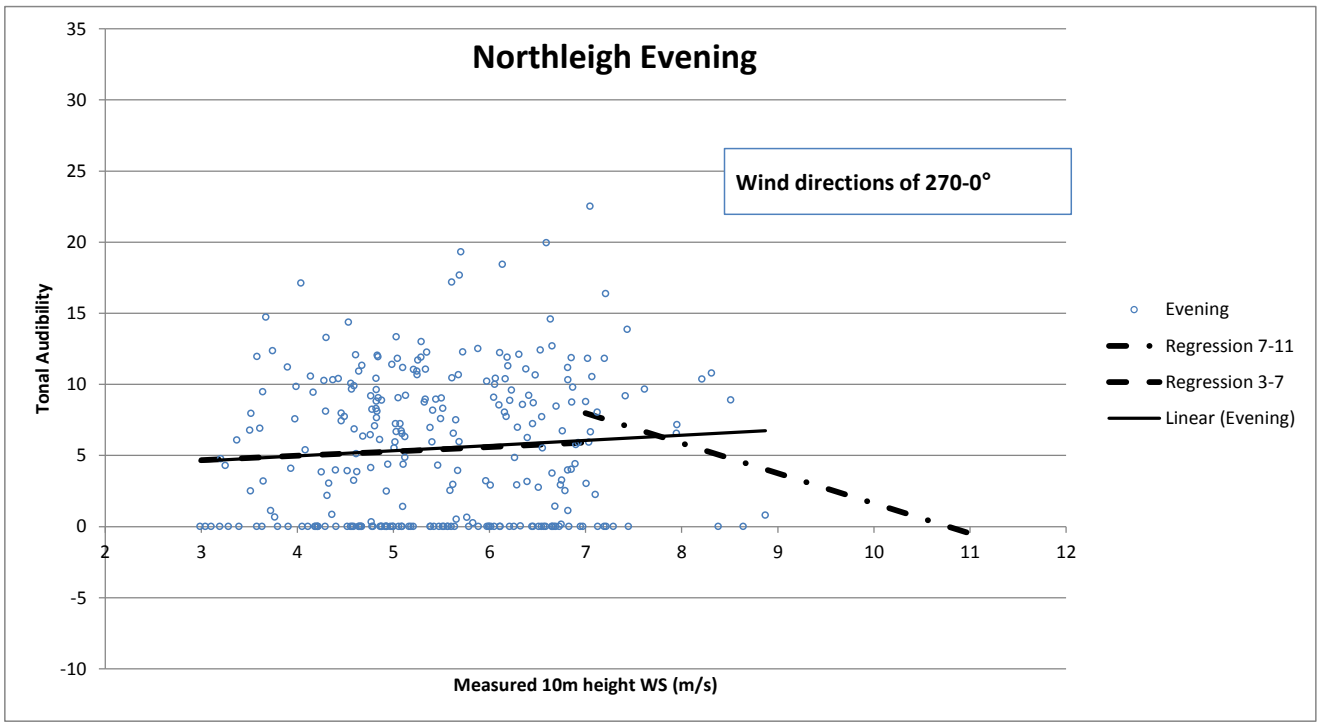
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	3.6	3.3	3.0	2.7	2.5	2.2	1.9	1.6	0.0
Bin Analysis	2.2	1.7	3.6	4.8	3.2	1.9	0.0	0.0	0.0
Linear Regression 3-7,7-11	1.8	2.5	3.2	4.0	4.7	2.1	0.0	0.0	0.0
Average 3-7, 7-11	3.2				0.0				
Overall Average	2.7								



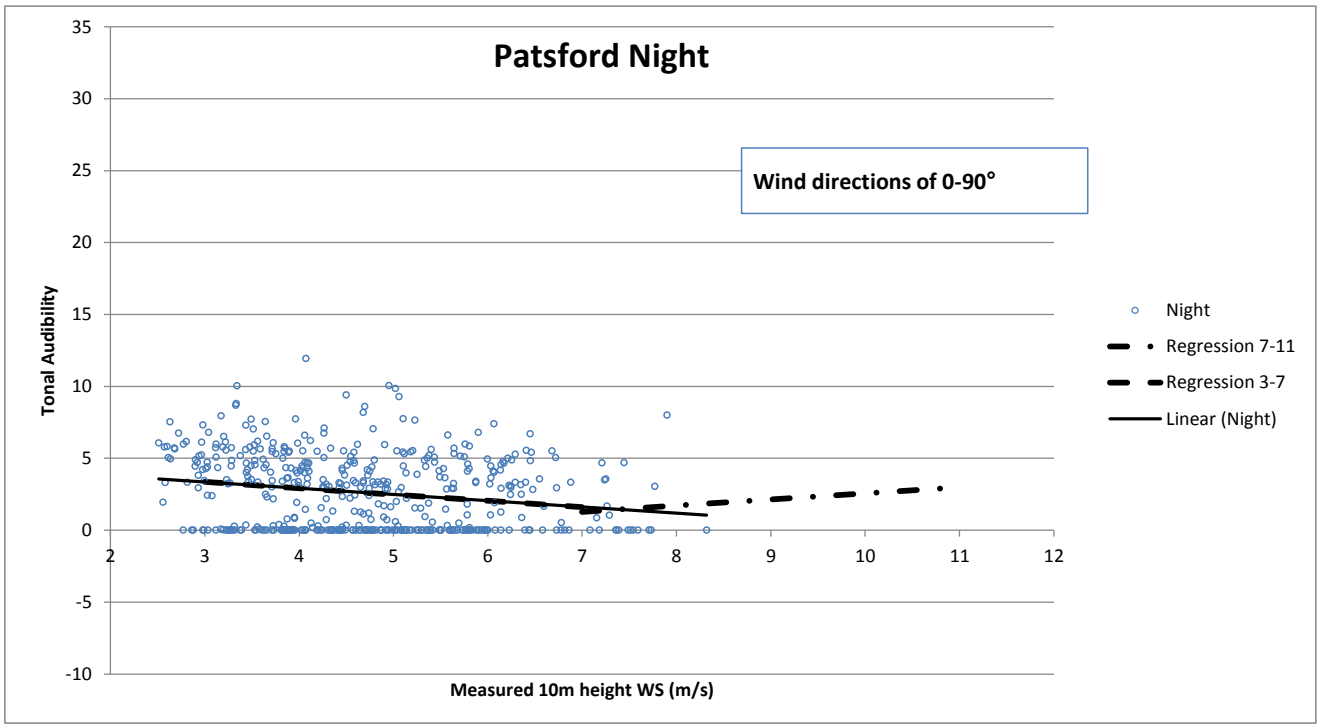
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	4.4	3.9	3.4	2.9	2.4	1.9	0.0	0.0	0.0
Bin Analysis	2.3	3.3	3.7	3.6	2.5	2.0	0.0	0.0	0.0
Linear Regression 3-7,7-11	3.2	3.3	3.4	3.5	3.6	1.8	0.0	0.0	0.0
Average 3-7, 7-11	3.4				0.0				
Overall Average	2.8								



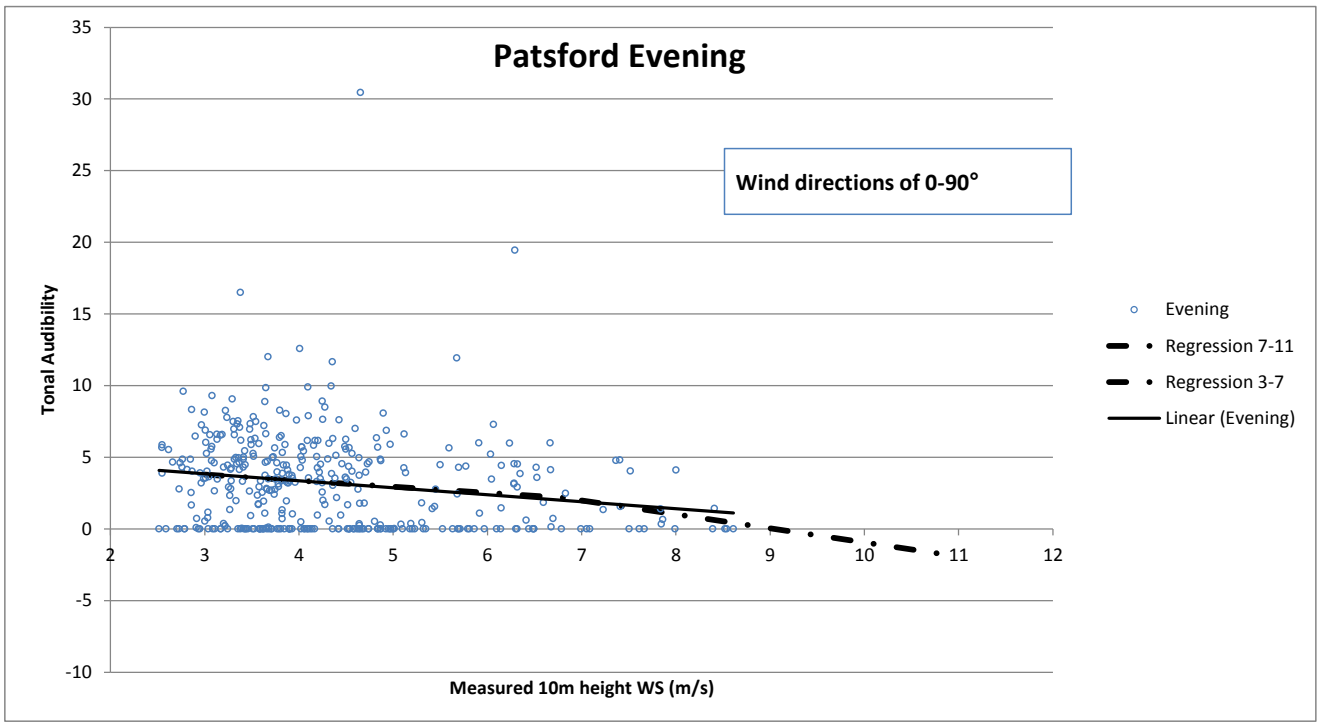
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	3.8	3.7	3.6	3.6	3.5	-	-	-
Bin Analysis	2.4	4.9	4.1	3.0	2.8	5.0	5.0	5.0	0.0
Linear Regression 3-7,7-11	4.8	4.2	3.6	3.0	5.0	4.7	-	-	-
Average 3-7, 7-11	3.4				4.6				
Overall Average	3.7								



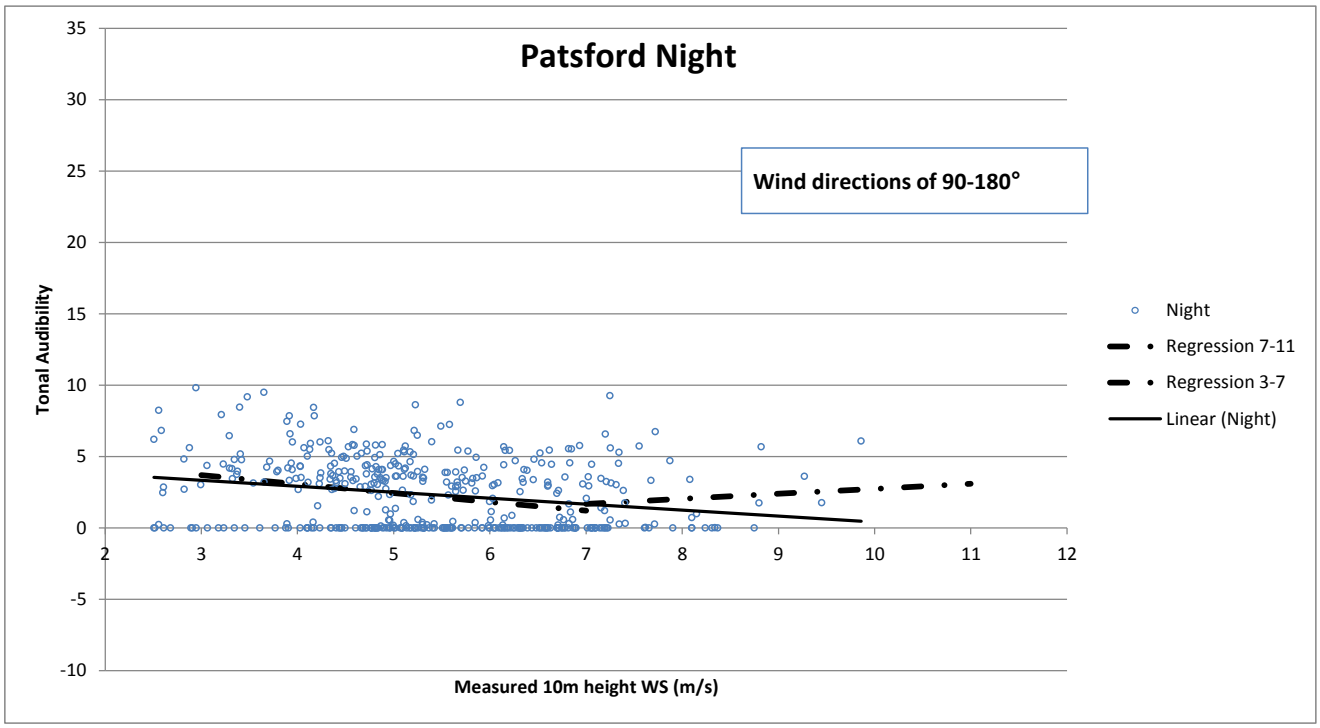
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	3.8	4.1	4.4	4.7	-	-	-	-
Bin Analysis	0.0	4.1	4.2	4.6	4.3	5.0	2.5	-	-
Linear Regression 3-7,7-11	-	3.8	4.1	4.3	5.0	-	-	-	-
Average 3-7, 7-11	4.1				4.6				
Overall Average	4.2								



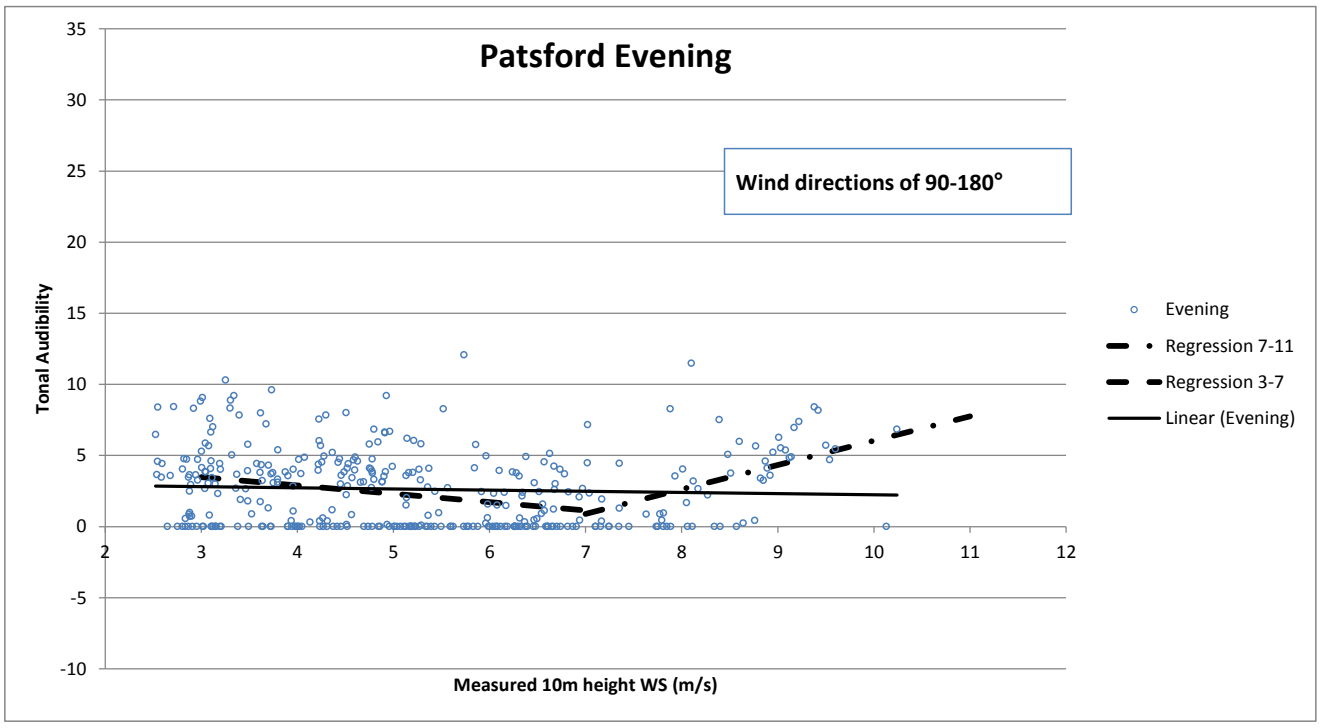
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.6	2.2	1.9	1.5	0.0	-	-	-	-
Bin Analysis	2.9	1.9	1.8	1.8	0.0	0.0	-	-	-
Linear Regression 3-7,7-11	2.6	2.2	1.9	1.5	0.0	-	-	-	-
Average 3-7, 7-11	2.0				0.0				
Overall Average	2.0								



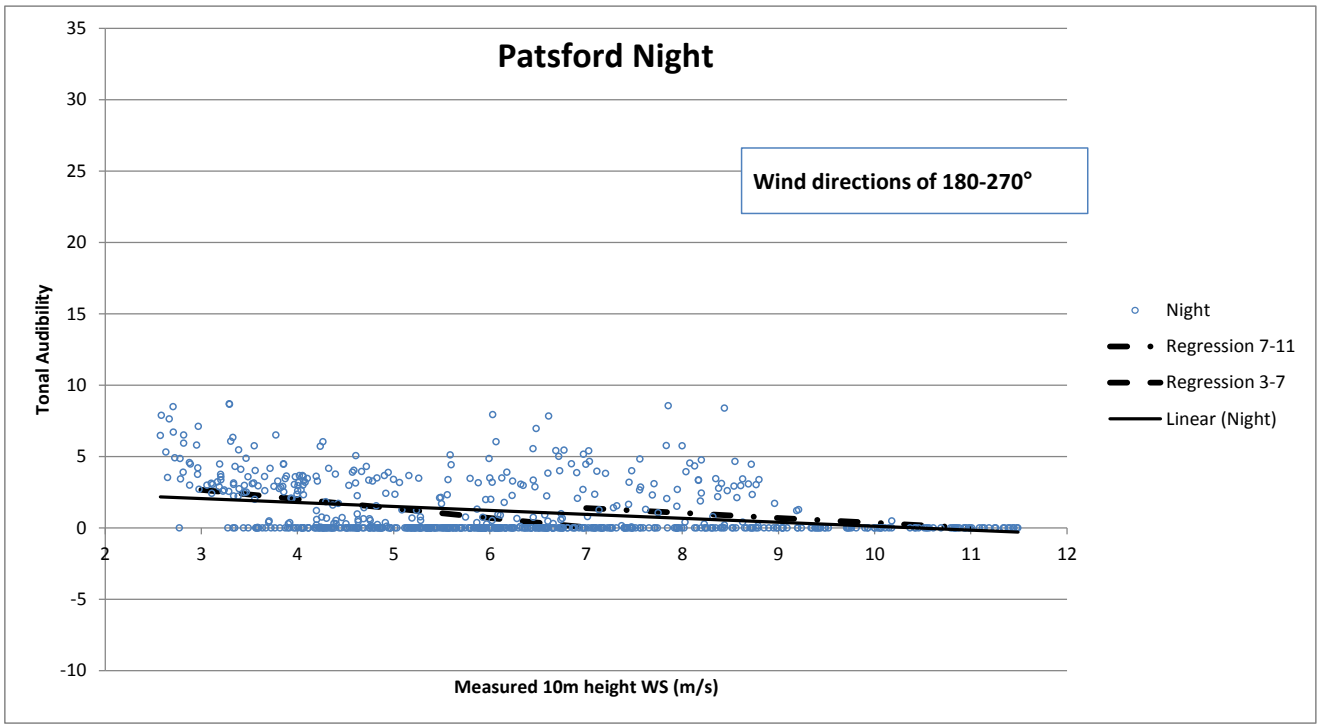
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.9	2.6	2.2	1.8	0.0	0.0	-	-	-
Bin Analysis	3.0	2.7	1.8	2.1	1.7	0.0	0.0	-	-
Linear Regression 3-7,7-11	2.9	2.6	2.2	1.9	1.6	0.0	-	-	-
Average 3-7, 7-11	2.5				0.0				
Overall Average	2.4								



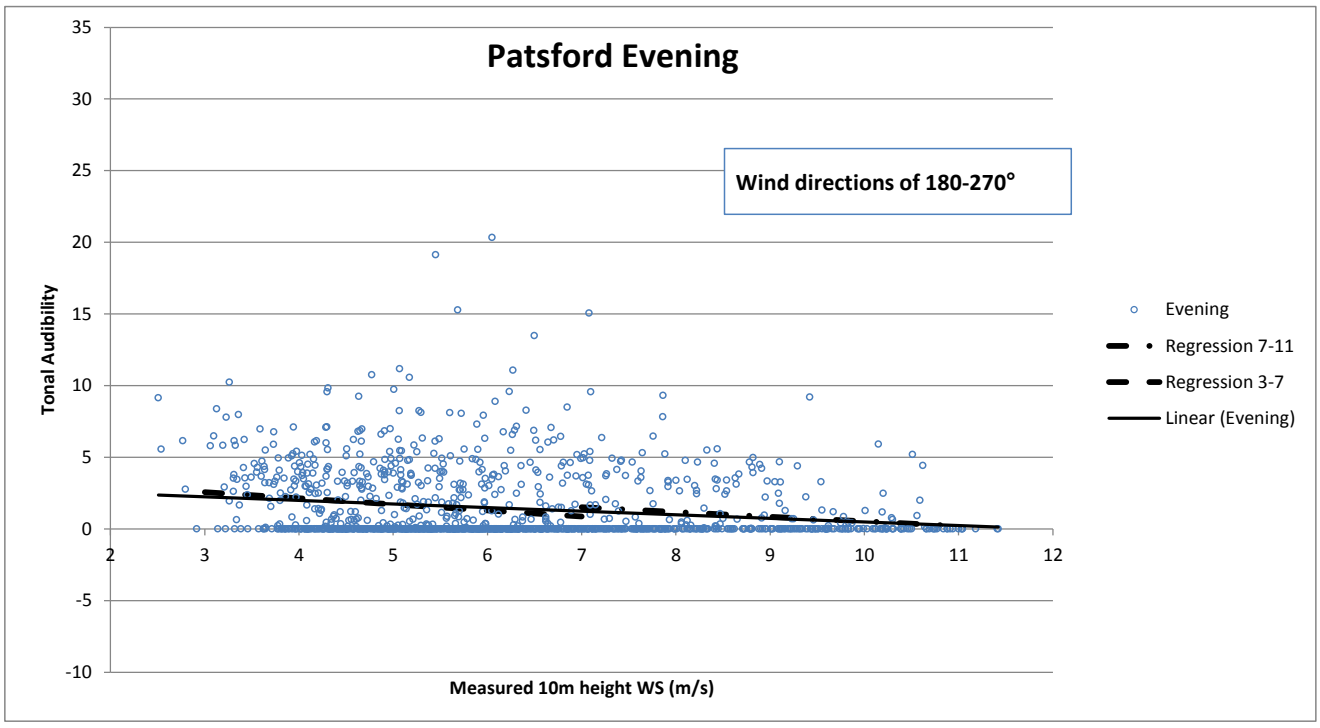
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.5	2.2	1.9	1.6	0.0	0.0	-	-	-
Bin Analysis	2.6	2.5	1.8	0.0	0.0	0.0	1.9	4.7	-
Linear Regression 3-7,7-11	2.8	2.3	1.8	0.0	0.0	1.5	-	-	-
Average 3-7, 7-11	1.8				0.0				
Overall Average	1.8								



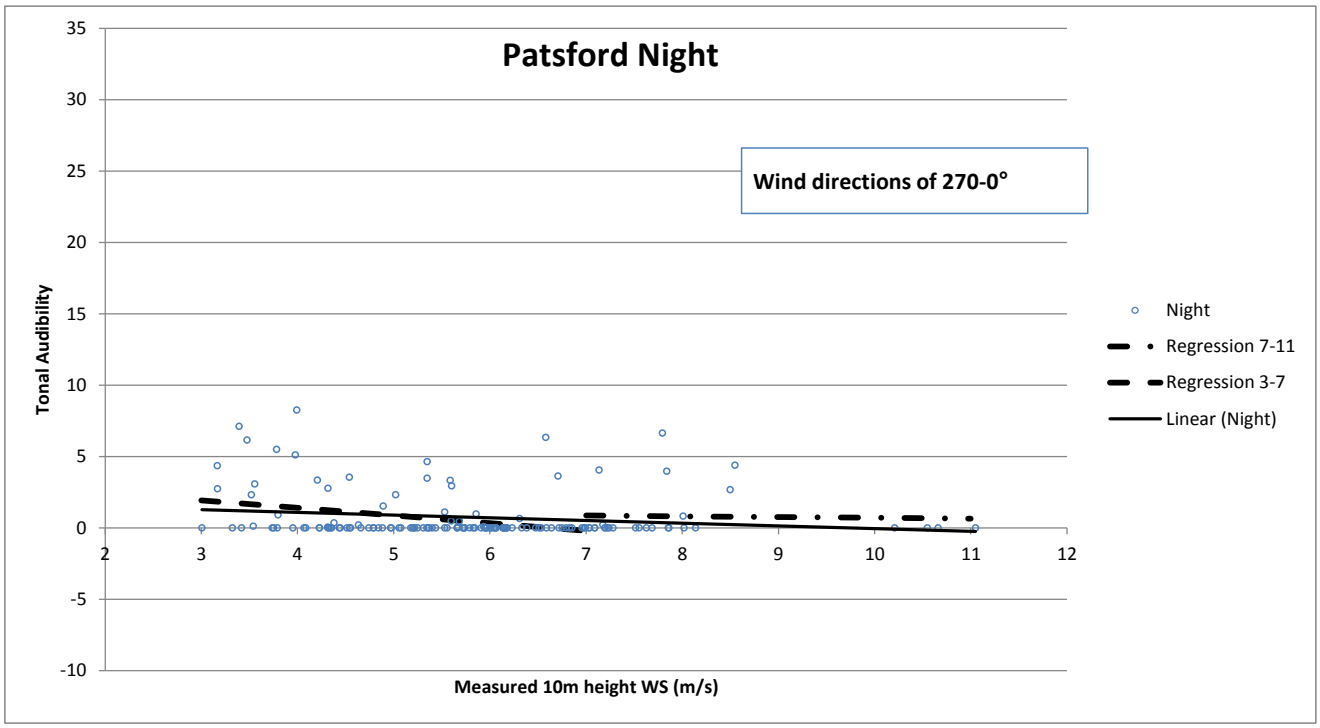
	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	2.1	2.1	2.0	1.9	1.9	1.8	1.7	-	-
Bin Analysis	2.6	2.0	1.9	0.0	0.0	1.7	3.6	3.5	-
Linear Regression 3-7,7-11	2.6	2.2	1.7	0.0	0.0	2.0	3.3	-	-
Average 3-7, 7-11	1.9				2.4				
Overall Average	0.0								



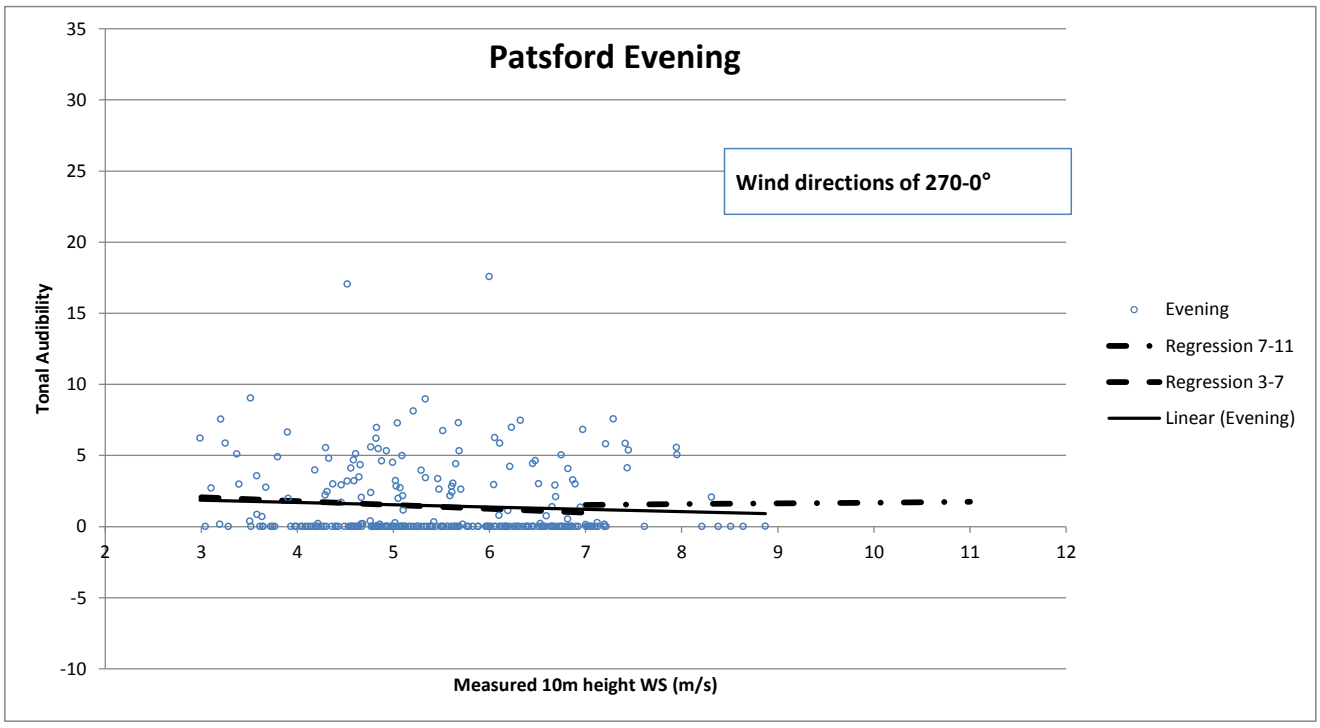
	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bin Analysis	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Linear Regression 3-7,7-11	2.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average 3-7, 7-11	0.0				0.0				
Overall Average	0.0								



	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bin Analysis	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Linear Regression 3-7,7-11	1.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average 3-7, 7-11	0.0				0.0				
Overall Average	0.0								



	Night Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	0.0	0.0	0.0	0.0	0.0	-	-	-
Bin Analysis	2.2	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0
Linear Regression 3-7,7-11	-	0.0	0.0	0.0	0.0	0.0	-	-	-
Average 3-7, 7-11	0.0				0.0				
Overall Average	0.0								



	Evening Tonal Penalty at Integer WS								
	3	4	5	6	7	8	9	10	11
Regression Analysis	-	0.0	0.0	0.0	0.0	-	-	-	-
Bin Analysis	2.6	0.0	0.0	0.0	0.0	1.6	0.0	-	-
Linear Regression 3-7,7-11	-	0.0	0.0	0.0	0.0	-	-	-	-
Average 3-7, 7-11	0.0				0.0				
Overall Average	0.0								

Appendix D

Noise Assessment Results

Table 9 – Noise Compliance Assessment Results (dB) – Burland Farm, Night

Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	35.8	37.4	38.0	38.7	40.5	-	-	-	-
	No. Valid Data Points	83	145	132	88	25	8	0	0	0
	Tonal penalty (dB)	2.2	2.0	1.9	1.7	0.0	-	-	-	-
	Wind Farm Rating Level (dB)	38.0	39.4	39.9	40.4	40.5	-	-	-	-
	Relevant Noise Limit (dB)	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
	Noise Limit Exceeded By	-7.0	-5.6	-5.1	-4.6	-4.5	-	-	-	-
Sector 2	Wind Farm Noise Level (dB)	39.4	39.9	40.1	40.1	39.6	39.2	-	-	-
	No. Valid Data Points	38	72	135	92	81	18	5	1	0
	Tonal penalty (dB)	1.6	0.0	0.0	0.0	2.2	0.0	-	-	-
	Wind Farm Rating Level (dB)	41.0	39.9	40.1	40.1	41.8	39.2	-	-	-
	Relevant Noise Limit (dB)	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
	Noise Limit Exceeded By	-4.0	-5.1	-4.9	-4.9	-3.2	-5.8	-	-	-
Sector 3	Wind Farm Noise Level (dB)	36.4	38.2	39.8	41.0	41.9	42.6	44.3	46.6	48.9
	No. Valid Data Points	57	109	116	128	101	64	49	25	34
	Tonal penalty (dB)	2.0	1.9	1.8	1.7	2.3	1.7	0.0	0.0	0.0
	Wind Farm Rating Level (dB)	38.4	40.1	41.6	42.7	44.2	44.3	44.3	46.6	48.9
	Relevant Noise Limit (dB)	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
	Noise Limit Exceeded By	-6.6	-4.9	-3.4	-2.3	-0.8	-0.7	-0.7	1.6	3.9
Sector 4	Wind Farm Noise Level (dB)	-	37.9	39.1	39.2	37.8	37.6	-	-	-
	No. Valid Data Points	7	26	30	44	25	12	1	1	4
	Tonal penalty (dB)	-	3.2	3.3	3.4	5.0	4.8	-	-	-
	Wind Farm Rating Level (dB)	-	41.2	42.4	42.6	42.8	42.4	-	-	-
	Relevant Noise Limit (dB)	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
	Noise Limit Exceeded By	-	-3.8	-2.6	-2.4	-2.2	-2.6	-	-	-

Table 10 – Noise Compliance Assessment Results (dB) – Burland Farm, Evening

Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	35.8	36.7	38.5	40.2	41.0	39.5	-	-	-
	No. Valid Data Points	108	144	70	38	16	11	3	0	0
	Tonal penalty (dB)	3.3	3.1	3.0	2.9	2.8	0.0	-	-	-
	Wind Farm Rating Level (dB)	39.1	39.9	41.5	43.1	43.8	39.5	-	-	-
	Relevant Noise Limit (dB)	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	46.0
	Noise Limit Exceeded By	-5.9	-5.1	-3.5	-1.9	-1.2	-5.5	-	-	-
Sector 2	Wind Farm Noise Level (dB)	38.2	38.9	39.5	39.9	40.0	39.8	40.7	-	-
	No. Valid Data Points	77	64	77	54	41	23	22	4	0
	Tonal penalty (dB)	2.9	2.9	2.9	3.0	3.0	1.6	1.6	-	-
	Wind Farm Rating Level (dB)	41.1	41.8	42.4	42.8	42.9	41.4	42.3	-	-
	Relevant Noise Limit (dB)	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	46.0
	Noise Limit Exceeded By	-3.9	-3.2	-2.6	-2.2	-2.1	-3.6	-2.7	-	-
Sector 3	Wind Farm Noise Level (dB)	37.3	38.4	39.6	40.8	42.0	43.3	45.1	47.5	49.7
	No. Valid Data Points	33	185	273	255	162	115	84	66	24
	Tonal penalty (dB)	3.0	2.8	2.6	2.3	3.0	2.3	1.7	0.0	0.0
	Wind Farm Rating Level (dB)	40.3	41.2	42.2	43.1	44.9	45.6	46.8	47.5	49.7
	Relevant Noise Limit (dB)	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	46.0
	Noise Limit Exceeded By	-4.7	-3.8	-2.8	-1.9	-0.1	0.6	1.8	2.5	3.7
Sector 4	Wind Farm Noise Level (dB)	-	37.7	38.8	39.4	38.9	-	-	-	-
	No. Valid Data Points	9	45	98	65	56	6	3	0	0
	Tonal penalty (dB)	-	2.7	3.0	3.3	3.6	-	-	-	-
	Wind Farm Rating Level (dB)	-	40.4	41.8	42.7	42.5	-	-	-	-
	Relevant Noise Limit (dB)	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	46.0
	Noise Limit Exceeded By	-	-4.6	-3.2	-2.3	-2.5	-	-	-	-

Table 11 – Noise Compliance Assessment Results (dB) – Binalong, Night

Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	33.7	34.8	35.3	35.9	37.8	-	-	-	-
	No. Valid Data Points	83	145	132	88	25	8	0	0	0
	Tonal penalty (dB)	3.0	2.5	2.0	1.5	1.6	-	-	-	-
	Wind Farm Rating Level (dB)	36.8	37.4	37.3	37.4	39.3	-	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-6.2	-5.6	-5.7	-5.6	-3.7	-	-	-	-
Sector 2	Wind Farm Noise Level (dB)	36.5	37.0	36.7	36.1	35.4	36.6	-	-	-
	No. Valid Data Points	38	72	135	92	81	18	5	1	0
	Tonal penalty (dB)	3.2	3.1	3.0	2.9	2.8	0.0	-	-	-
	Wind Farm Rating Level (dB)	39.7	40.1	39.7	39.0	38.2	36.6	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-3.3	-2.9	-3.3	-4.0	-4.8	-6.4	-	-	-
Sector 3	Wind Farm Noise Level (dB)	32.6	34.6	35.4	35.3	34.8	35.3	36.0	37.1	39.4
	No. Valid Data Points	56	109	116	128	101	64	49	25	34
	Tonal penalty (dB)	2.2	2.4	2.5	2.6	3.9	3.2	2.5	1.8	0.0
	Wind Farm Rating Level (dB)	34.8	37.0	37.9	37.9	38.8	38.6	38.5	38.9	39.4
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-8.2	-6.0	-5.1	-5.1	-4.2	-4.4	-4.5	-4.1	-3.6
Sector 4	Wind Farm Noise Level (dB)	-	32.8	32.2	32.0	32.8	33.8	-	-	-
	No. Valid Data Points	6	25	30	44	25	12	1	1	4
	Tonal penalty (dB)	-	2.8	2.3	1.8	2.1	1.7	-	-	-
	Wind Farm Rating Level (dB)	-	35.6	34.5	33.8	34.9	35.5	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-	-7.4	-8.5	-9.2	-8.1	-7.5	-	-	-

Table 12 – Noise Compliance Assessment Results (dB) – Binalong, Evening

Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	33.4	34.3	36.3	38.7	40.5	40.5	-	-	-
	No. Valid Data Points	108	144	70	38	16	11	3	0	0
	Tonal penalty (dB)	3.3	3.0	2.7	2.4	3.2	0.0	-	-	-
	Wind Farm Rating Level (dB)	36.7	37.3	39.0	41.1	43.6	40.5	-	-	-
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	40.0	41.0	41.0	41.0	42.0
	Noise Limit Exceeded By	-3.3	-2.7	-1.0	1.1	3.6	-0.5	-	-	-
Sector 2	Wind Farm Noise Level (dB)	36.8	38.1	38.6	38.5	37.9	37.0	37.5	-	-
	No. Valid Data Points	77	64	77	54	41	23	22	4	0
	Tonal penalty (dB)	2.5	2.3	2.2	2.0	2.7	2.4	2.1	-	-
	Wind Farm Rating Level (dB)	39.3	40.4	40.7	40.5	40.6	39.4	39.7	-	-
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	40.0	41.0	41.0	41.0	42.0
	Noise Limit Exceeded By	-0.7	0.4	0.7	0.5	0.6	-1.6	-1.3	-	-
Sector 3	Wind Farm Noise Level (dB)	35.3	36.7	37.3	37.4	37.0	36.6	37.2	37.9	38.9
	No. Valid Data Points	33	184	271	253	159	112	84	66	24
	Tonal penalty (dB)	1.7	1.7	1.8	1.8	2.7	2.3	1.9	1.5	0.0
	Wind Farm Rating Level (dB)	37.0	38.4	39.0	39.2	39.7	38.9	39.1	39.4	38.9
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	40.0	41.0	41.0	41.0	42.0
	Noise Limit Exceeded By	-3.0	-1.6	-1.0	-0.8	-0.3	-2.1	-1.9	-1.6	-3.1
Sector 4	Wind Farm Noise Level (dB)	-	32.7	32.9	33.2	33.8	-	-	-	-
	No. Valid Data Points	9	39	94	62	54	6	3	0	0
	Tonal penalty (dB)	-	2.0	1.8	1.7	2.6	-	-	-	-
	Wind Farm Rating Level (dB)	-	34.6	34.7	34.9	36.4	-	-	-	-
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	40.0	41.0	41.0	41.0	42.0
	Noise Limit Exceeded By	-	-5.4	-5.3	-5.1	-3.6	-	-	-	-

Table 13 – Noise Compliance Assessment Results (dB) – Halsinger, Night

Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	34.4	36.6	38.3	39.9	42.1	-	-	-	-
	No. Valid Data Points	83	145	132	88	25	8	0	0	0
	Tonal penalty (dB)	2.1	1.7	0.0	0.0	0.0	-	-	-	-
	Wind Farm Rating Level (dB)	36.5	38.3	38.3	39.9	42.1	-	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-6.5	-4.7	-4.7	-3.1	-0.9	-	-	-	-
Sector 2	Wind Farm Noise Level (dB)	35.9	34.5	34.0	34.1	34.3	34.4	-	-	-
	No. Valid Data Points	38	72	135	92	81	18	5	1	0
	Tonal penalty (dB)	1.7	0.0	0.0	0.0	1.6	0.0	-	-	-
	Wind Farm Rating Level (dB)	37.6	34.5	34.0	34.1	35.9	34.4	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-5.4	-8.5	-9.0	-8.9	-7.1	-8.6	-	-	-
Sector 3	Wind Farm Noise Level (dB)	28.3	29.3	30.0	30.2	30.7	32.0	33.4	34.9	36.7
	No. Valid Data Points	57	109	116	128	101	64	49	25	34
	Tonal penalty (dB)	4.3	3.8	3.3	2.8	2.3	1.8	0.0	0.0	0.0
	Wind Farm Rating Level (dB)	32.6	33.1	33.3	33.0	33.0	33.8	33.4	34.9	36.7
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-10.4	-9.9	-9.7	-10.0	-10.0	-9.2	-9.6	-8.1	-6.3
Sector 4	Wind Farm Noise Level (dB)	-	32.4	33.1	32.6	31.0	31.0	-	-	-
	No. Valid Data Points	7	26	30	44	25	12	1	1	4
	Tonal penalty (dB)	-	2.2	2.1	2.0	2.0	1.6	-	-	-
	Wind Farm Rating Level (dB)	-	34.6	35.2	34.6	33.0	32.7	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-	-8.4	-7.8	-8.4	-10.0	-10.3	-	-	-

Table 14 – Noise Compliance Assessment Results (dB) – Halsinger, Evening

Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	34.3	35.7	38.0	40.2	41.6	41.1	-	-	-
	No. Valid Data Points	108	144	70	38	16	11	3	0	0
	Tonal penalty (dB)	1.9	1.8	1.8	1.8	1.8	0.0	-	-	-
	Wind Farm Rating Level (dB)	36.2	37.6	39.8	42.0	43.4	41.1	-	-	-
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	41.0	42.0	43.0	43.0	44.0
	Noise Limit Exceeded By	-3.8	-2.4	-0.2	2.0	2.4	-0.9	-	-	-
Sector 2	Wind Farm Noise Level (dB)	35.8	35.4	34.8	34.0	33.0	32.3	33.3	-	-
	No. Valid Data Points	77	64	77	54	41	23	22	4	0
	Tonal penalty (dB)	1.6	1.7	1.8	1.9	2.0	0.0	0.0	-	-
	Wind Farm Rating Level (dB)	37.4	37.2	36.6	35.9	35.0	32.3	33.3	-	-
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	41.0	42.0	43.0	43.0	44.0
	Noise Limit Exceeded By	-2.6	-2.8	-3.4	-4.1	-6.0	-9.7	-9.7	-	-
Sector 3	Wind Farm Noise Level (dB)	27.4	29.5	31.4	33.0	34.3	34.9	35.1	35.8	36.3
	No. Valid Data Points	33	185	273	255	162	115	84	66	24
	Tonal penalty (dB)	4.6	4.2	3.8	3.4	3.3	2.5	1.7	0.0	0.0
	Wind Farm Rating Level (dB)	32.0	33.7	35.2	36.4	37.6	37.4	36.8	35.8	36.3
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	41.0	42.0	43.0	43.0	44.0
	Noise Limit Exceeded By	-8.0	-6.3	-4.8	-3.6	-3.4	-4.6	-6.2	-7.2	-7.7
Sector 4	Wind Farm Noise Level (dB)	-	33.6	33.8	33.9	33.5	-	-	-	-
	No. Valid Data Points	9	45	98	65	56	6	3	0	0
	Tonal penalty (dB)	-	2.9	2.6	2.3	2.0	-	-	-	-
	Wind Farm Rating Level (dB)	-	36.5	36.4	36.2	35.6	-	-	-	-
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	41.0	42.0	43.0	43.0	44.0
	Noise Limit Exceeded By	-	-3.5	-3.6	-3.8	-5.4	-	-	-	-

Table 15 – Noise Compliance Assessment Results (dB) – Beara, Night

Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	33.8	34.9	35.7	36.2	36.6	-	-	-	-
	No. Valid Data Points	83	145	132	88	25	8	0	0	0
	Tonal penalty (dB)	2.2	2.0	1.7	0.0	0.0	-	-	-	-
	Wind Farm Rating Level (dB)	36.0	36.9	37.4	36.2	36.6	-	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	44.0	44.0
	Noise Limit Exceeded By	-7.0	-6.1	-5.6	-6.8	-6.4	-	-	-	-
Sector 2	Wind Farm Noise Level (dB)	36.1	36.0	35.9	35.8	35.7	35.8	-	-	-
	No. Valid Data Points	38	72	135	92	81	18	5	1	0
	Tonal penalty (dB)	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-
	Wind Farm Rating Level (dB)	36.1	36.0	35.9	35.8	35.7	35.8	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	44.0	44.0
	Noise Limit Exceeded By	-6.9	-7.0	-7.1	-7.2	-7.3	-7.2	-	-	-
Sector 3	Wind Farm Noise Level (dB)	34.0	35.7	37.2	38.5	39.7	40.7	41.5	42.2	42.8
	No. Valid Data Points	57	109	116	128	101	64	49	25	34
	Tonal penalty (dB)	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Wind Farm Rating Level (dB)	35.8	35.7	37.2	38.5	39.7	40.7	41.5	42.2	42.8
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	44.0	44.0
	Noise Limit Exceeded By	-7.2	-7.3	-5.8	-4.5	-3.3	-2.3	-1.5	-1.8	-1.2
Sector 4	Wind Farm Noise Level (dB)	-	34.8	35.4	35.9	36.3	36.8	-	-	-
	No. Valid Data Points	7	26	30	44	25	12	1	1	4
	Tonal penalty (dB)	-	0.0	0.0	0.0	0.0	0.0	-	-	-
	Wind Farm Rating Level (dB)	-	34.8	35.4	35.9	36.3	36.8	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	44.0	44.0
	Noise Limit Exceeded By	-	-8.2	-7.6	-7.1	-6.7	-6.2	-	-	-

Table 16 – Noise Compliance Assessment Results (dB) – Beara, Evening

Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	34.1	35.1	36.3	37.1	36.4	35.2	-	-	-
	No. Valid Data Points	108	144	70	38	16	11	3	0	0
	Tonal penalty (dB)	2.4	2.5	2.7	2.9	3.0	0.0	-	-	-
	Wind Farm Rating Level (dB)	36.5	37.7	39.0	40.0	39.4	35.2	-	-	-
	Relevant Noise Limit (dB)	40.0	40.0	41.0	41.0	42.0	43.0	43.0	44.0	44.0
	Noise Limit Exceeded By	-3.5	-2.3	-2.0	-1.0	-2.6	-7.8	-	-	-
Sector 2	Wind Farm Noise Level (dB)	35.8	36.2	36.3	36.0	34.8	35.3	36.2	-	-
	No. Valid Data Points	77	64	77	54	41	23	22	4	0
	Tonal penalty (dB)	1.9	1.5	0.0	0.0	0.0	0.0	0.0	-	-
	Wind Farm Rating Level (dB)	37.7	37.8	36.3	36.0	34.8	35.3	36.2	-	-
	Relevant Noise Limit (dB)	40.0	40.0	41.0	41.0	42.0	43.0	43.0	44.0	44.0
	Noise Limit Exceeded By	-2.3	-2.2	-4.7	-5.0	-7.2	-7.7	-6.8	-	-
Sector 3	Wind Farm Noise Level (dB)	35.0	36.2	37.4	38.6	39.6	40.0	40.6	41.5	42.1
	No. Valid Data Points	33	185	273	255	162	115	84	66	24
	Tonal penalty (dB)	2.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Wind Farm Rating Level (dB)	37.2	37.9	37.4	38.6	39.6	40.0	40.6	41.5	42.1
	Relevant Noise Limit (dB)	40.0	40.0	41.0	41.0	42.0	43.0	43.0	44.0	44.0
	Noise Limit Exceeded By	-2.8	-2.1	-3.6	-2.4	-2.4	-3.0	-2.4	-2.5	-1.9
Sector 4	Wind Farm Noise Level (dB)	-	34.8	36.0	36.9	37.2	-	-	-	-
	No. Valid Data Points	9	45	98	65	56	6	3	0	0
	Tonal penalty (dB)	-	2.0	1.7	1.5	0.0	-	-	-	-
	Wind Farm Rating Level (dB)	-	36.8	37.7	38.4	37.2	-	-	-	-
	Relevant Noise Limit (dB)	40.0	40.0	41.0	41.0	42.0	43.0	43.0	44.0	44.0
	Noise Limit Exceeded By	-	-3.2	-3.3	-2.6	-4.8	-	-	-	-

Table 17 – Noise Compliance Assessment Results (dB) – Metcombe, Night

Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	33.6	35.4	36.1	36.8	38.5	-	-	-	-
	No. Valid Data Points	83	145	132	88	25	8	0	0	0
	Tonal penalty (dB)	3.2	2.7	2.2	1.7	0.0	-	-	-	-
	Wind Farm Rating Level (dB)	36.8	38.1	38.3	38.5	38.5	-	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-6.2	-4.9	-4.7	-4.5	-4.5	-	-	-	-
Sector 2	Wind Farm Noise Level (dB)	34.0	33.4	33.1	33.0	33.2	33.5	-	-	-
	No. Valid Data Points	38	72	135	92	81	18	5	1	0
	Tonal penalty (dB)	2.5	2.2	1.9	1.6	2.0	0.0	-	-	-
	Wind Farm Rating Level (dB)	36.5	35.6	35.0	34.6	35.1	33.5	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-6.5	-7.4	-8.0	-8.4	-7.9	-9.5	-	-	-
Sector 3	Wind Farm Noise Level (dB)	31.2	32.8	34.1	35.4	36.5	37.6	38.6	39.8	41.1
	No. Valid Data Points	57	109	116	128	101	64	49	25	34
	Tonal penalty (dB)	4.3	3.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0
	Wind Farm Rating Level (dB)	35.4	35.9	36.1	35.4	36.5	37.6	38.6	39.8	41.1
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-7.6	-7.1	-6.9	-7.6	-6.5	-5.4	-4.4	-3.2	-1.9
Sector 4	Wind Farm Noise Level (dB)	-	35.2	36.0	36.4	36.7	36.9	-	-	-
	No. Valid Data Points	7	26	30	44	25	12	1	1	4
	Tonal penalty (dB)	-	2.7	2.0	0.0	0.0	0.0	-	-	-
	Wind Farm Rating Level (dB)	-	37.9	38.0	36.4	36.7	36.9	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-	-5.1	-5.0	-6.6	-6.3	-6.1	-	-	-

Table 18 – Noise Compliance Assessment Results (dB) – Metcombe, Evening

Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	32.9	33.7	35.2	36.7	37.8	37.8	-	-	-
	No. Valid Data Points	108	144	70	38	16	11	3	0	0
	Tonal penalty (dB)	1.7	2.1	2.5	3.0	3.4	1.5	-	-	-
	Wind Farm Rating Level (dB)	34.6	35.8	37.7	39.7	41.2	39.4	-	-	-
	Relevant Noise Limit (dB)	40.0	41.0	41.0	41.0	41.0	42.0	44.0	45.0	45.0
	Noise Limit Exceeded By	-5.4	-5.2	-3.3	-1.3	0.2	-2.6	-	-	-
Sector 2	Wind Farm Noise Level (dB)	34.3	34.6	34.4	33.9	33.1	31.7	32.0	-	-
	No. Valid Data Points	77	64	77	54	41	23	22	4	0
	Tonal penalty (dB)	3.1	2.6	2.1	1.6	0.0	0.0	1.8	-	-
	Wind Farm Rating Level (dB)	37.4	37.1	36.5	35.5	33.1	31.7	33.8	-	-
	Relevant Noise Limit (dB)	40.0	41.0	41.0	41.0	41.0	42.0	44.0	45.0	45.0
	Noise Limit Exceeded By	-2.6	-3.9	-4.5	-5.5	-7.9	-10.3	-10.2	-	-
Sector 3	Wind Farm Noise Level (dB)	31.7	33.7	35.2	36.5	37.6	38.5	39.4	40.5	41.7
	No. Valid Data Points	33	185	273	255	162	115	84	66	24
	Tonal penalty (dB)	3.9	3.1	2.2	0.0	0.0	0.0	0.0	0.0	0.0
	Wind Farm Rating Level (dB)	35.7	36.8	37.5	36.5	37.6	38.5	39.4	40.5	41.7
	Relevant Noise Limit (dB)	40.0	41.0	41.0	41.0	41.0	42.0	44.0	45.0	45.0
	Noise Limit Exceeded By	-4.3	-4.2	-3.5	-4.5	-3.4	-3.5	-4.6	-4.5	-3.3
Sector 4	Wind Farm Noise Level (dB)	-	35.0	35.6	36.9	38.0	-	-	-	-
	No. Valid Data Points	9	45	98	65	56	6	3	0	0
	Tonal penalty (dB)	-	2.5	2.0	1.6	1.6	-	-	-	-
	Wind Farm Rating Level (dB)	-	37.5	37.6	38.5	39.6	-	-	-	-
	Relevant Noise Limit (dB)	40.0	41.0	41.0	41.0	41.0	42.0	44.0	45.0	45.0
	Noise Limit Exceeded By	-	-3.5	-3.4	-2.5	-1.4	-	-	-	-

Table 19 – Noise Compliance Assessment Results (dB) – Northleigh, Night

Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	27.8	30.0	32.0	34.2	37.4	-	-	-	-
	No. Valid Data Points	83	145	132	88	25	8	0	0	0
	Tonal penalty (dB)	4.0	4.0	3.9	3.9	4.5	-	-	-	-
	Wind Farm Rating Level (dB)	31.8	34.0	35.9	38.1	41.9	-	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-11.2	-9.0	-7.1	-4.9	-1.1	-	-	-	-
Sector 2	Wind Farm Noise Level (dB)	29.8	29.8	30.0	29.9	30.9	32.9	-	-	-
	No. Valid Data Points	38	72	135	92	81	18	5	1	0
	Tonal penalty (dB)	2.7	2.5	2.3	2.1	3.0	3.5	-	-	-
	Wind Farm Rating Level (dB)	32.5	32.3	32.3	32.0	33.9	36.5	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-10.5	-10.7	-10.7	-11.0	-9.1	-6.5	-	-	-
Sector 3	Wind Farm Noise Level (dB)	28.0	30.1	31.8	32.9	33.2	34.5	36.1	37.9	41.0
	No. Valid Data Points	57	109	116	128	101	64	49	25	34
	Tonal penalty (dB)	1.8	2.5	3.2	4.0	4.7	2.1	0.0	0.0	0.0
	Wind Farm Rating Level (dB)	29.8	32.7	35.0	36.9	37.9	36.6	36.1	37.9	41.0
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-13.2	-10.3	-8.0	-6.1	-5.1	-6.4	-6.9	-5.1	-2.0
Sector 4	Wind Farm Noise Level (dB)	-	31.7	32.5	32.3	31.5	32.3	-	-	-
	No. Valid Data Points	7	26	30	44	25	12	1	1	4
	Tonal penalty (dB)	-	4.2	3.6	3.0	5.0	4.7	-	-	-
	Wind Farm Rating Level (dB)	-	35.9	36.1	35.3	36.5	37.0	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-	-7.1	-6.9	-7.7	-6.5	-6.0	-	-	-

Table 20 – Noise Compliance Assessment Results (dB) – Northleigh, Evening

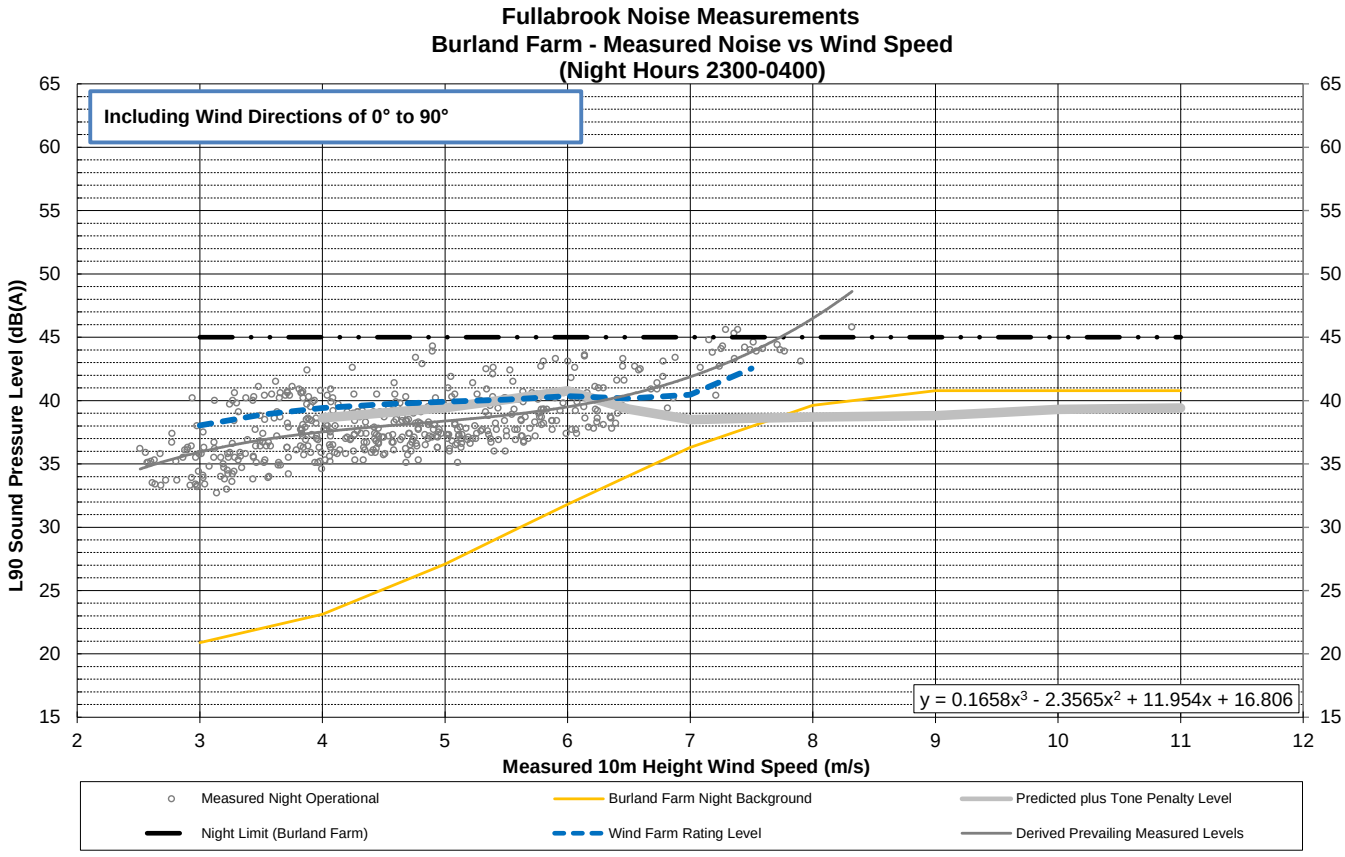
Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	28.5	29.3	33.1	37.3	39.7	37.3	-	-	-
	No. Valid Data Points	108	144	70	38	16	11	3	0	0
	Tonal penalty (dB)	3.5	3.4	3.4	3.4	5.0	5.0	-	-	-
	Wind Farm Rating Level (dB)	32.0	32.7	36.5	40.7	44.7	42.3	-	-	-
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	40.0	41.0	41.0	41.0	42.0
	Noise Limit Exceeded By	-8.0	-7.3	-3.5	0.7	4.7	1.3	-	-	-
Sector 2	Wind Farm Noise Level (dB)	30.2	30.4	30.8	30.8	31.1	32.1	32.8	-	-
	No. Valid Data Points	77	64	77	54	41	23	22	4	0
	Tonal penalty (dB)	4.0	3.5	3.1	2.6	3.3	1.8	0.0	-	-
	Wind Farm Rating Level (dB)	34.2	34.0	33.8	33.4	34.4	33.9	32.8	-	-
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	40.0	41.0	41.0	41.0	42.0
	Noise Limit Exceeded By	-5.8	-6.0	-6.2	-6.6	-5.6	-7.1	-8.2	-	-
Sector 3	Wind Farm Noise Level (dB)	29.1	30.8	32.3	33.5	34.6	35.4	37.1	39.1	42.3
	No. Valid Data Points	33	185	273	255	162	115	84	66	24
	Tonal penalty (dB)	3.2	3.3	3.4	3.5	3.6	1.8	0.0	0.0	0.0
	Wind Farm Rating Level (dB)	32.3	34.1	35.7	37.0	38.2	37.2	37.1	39.1	42.3
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	40.0	41.0	41.0	41.0	42.0
	Noise Limit Exceeded By	-7.7	-5.9	-4.3	-3.0	-1.8	-3.8	-3.9	-1.9	0.3
Sector 4	Wind Farm Noise Level (dB)	-	31.8	32.3	32.4	31.9	-	-	-	-
	No. Valid Data Points	9	45	98	65	56	6	3	0	0
	Tonal penalty (dB)	-	3.8	4.1	4.3	5.0	-	-	-	-
	Wind Farm Rating Level (dB)	-	35.6	36.3	36.7	36.9	-	-	-	-
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	40.0	41.0	41.0	41.0	42.0
	Noise Limit Exceeded By	-	-4.4	-3.7	-3.3	-3.1	-	-	-	-

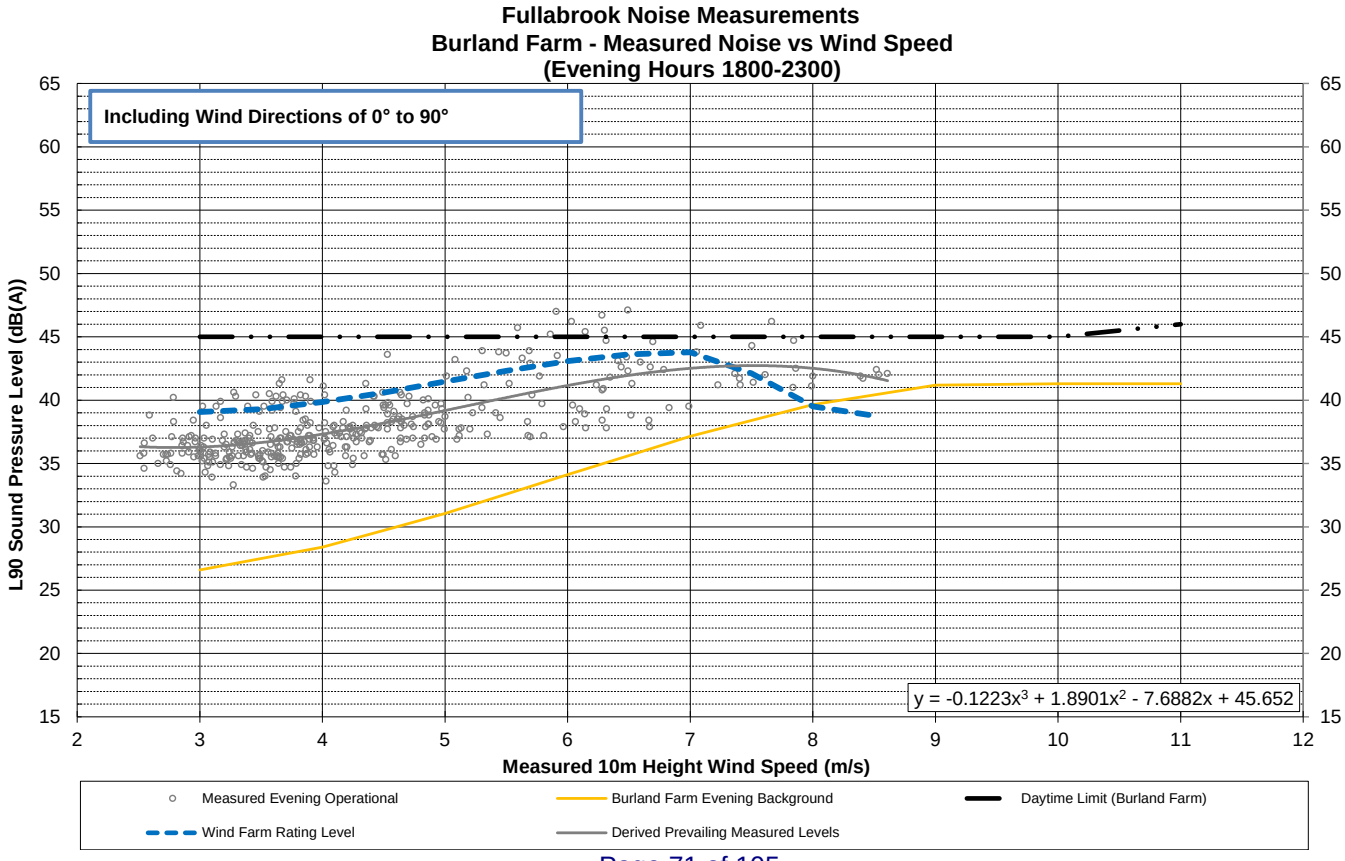
Table 21 – Noise Compliance Assessment Results (dB) – Patsford, Night

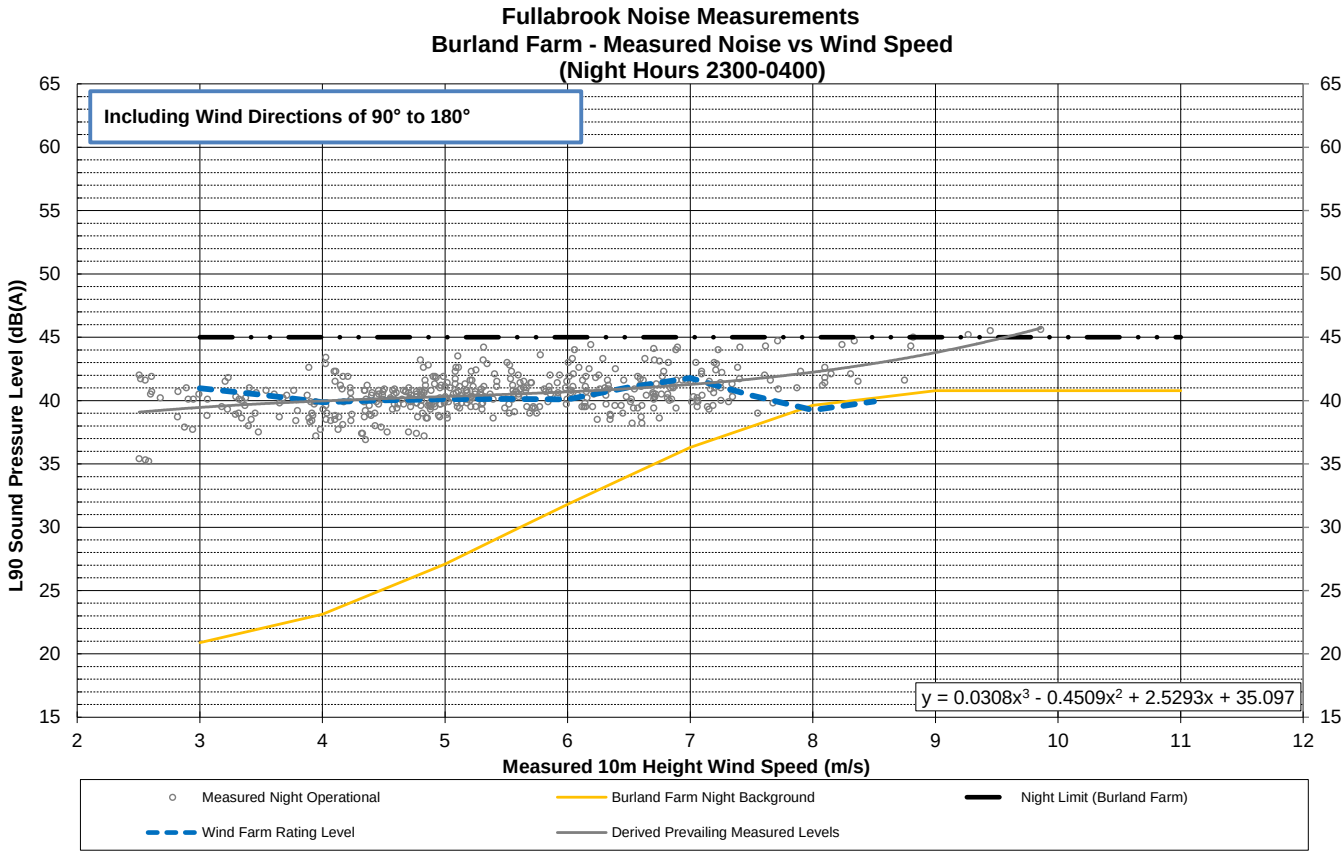
Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	33.1	35.1	36.2	37.1	38.4	-	-	-	-
	No. Valid Data Points	83	145	132	88	25	8	0	0	0
	Tonal penalty (dB)	2.6	2.2	1.9	1.5	0.0	-	-	-	-
	Wind Farm Rating Level (dB)	35.6	37.3	38.0	38.6	38.4	-	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-7.4	-5.7	-5.0	-4.4	-4.6	-	-	-	-
Sector 2	Wind Farm Noise Level (dB)	35.2	35.0	34.9	34.7	34.0	34.6	-	-	-
	No. Valid Data Points	38	72	135	92	81	18	5	1	0
	Tonal penalty (dB)	2.8	2.3	1.8	0.0	0.0	1.5	-	-	-
	Wind Farm Rating Level (dB)	38.0	37.3	36.7	34.7	34.0	36.1	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-5.0	-5.7	-6.3	-8.3	-9.0	-6.9	-	-	-
Sector 3	Wind Farm Noise Level (dB)	33.9	35.5	36.7	37.4	37.4	36.4	36.9	37.5	38.3
	No. Valid Data Points	57	109	116	128	101	64	49	25	34
	Tonal penalty (dB)	2.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Wind Farm Rating Level (dB)	35.9	37.0	36.7	37.4	37.4	36.4	36.9	37.5	38.3
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-7.1	-6.0	-6.3	-5.6	-5.6	-6.6	-6.1	-5.5	-4.7
Sector 4	Wind Farm Noise Level (dB)	-	35.9	36.8	36.9	36.1	34.8	-	-	-
	No. Valid Data Points	7	26	30	44	25	12	1	1	4
	Tonal penalty (dB)	-	0.0	0.0	0.0	0.0	0.0	-	-	-
	Wind Farm Rating Level (dB)	-	35.9	36.8	36.9	36.1	34.8	-	-	-
	Relevant Noise Limit (dB)	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Noise Limit Exceeded By	-	-7.1	-6.2	-6.1	-6.9	-8.2	-	-	-

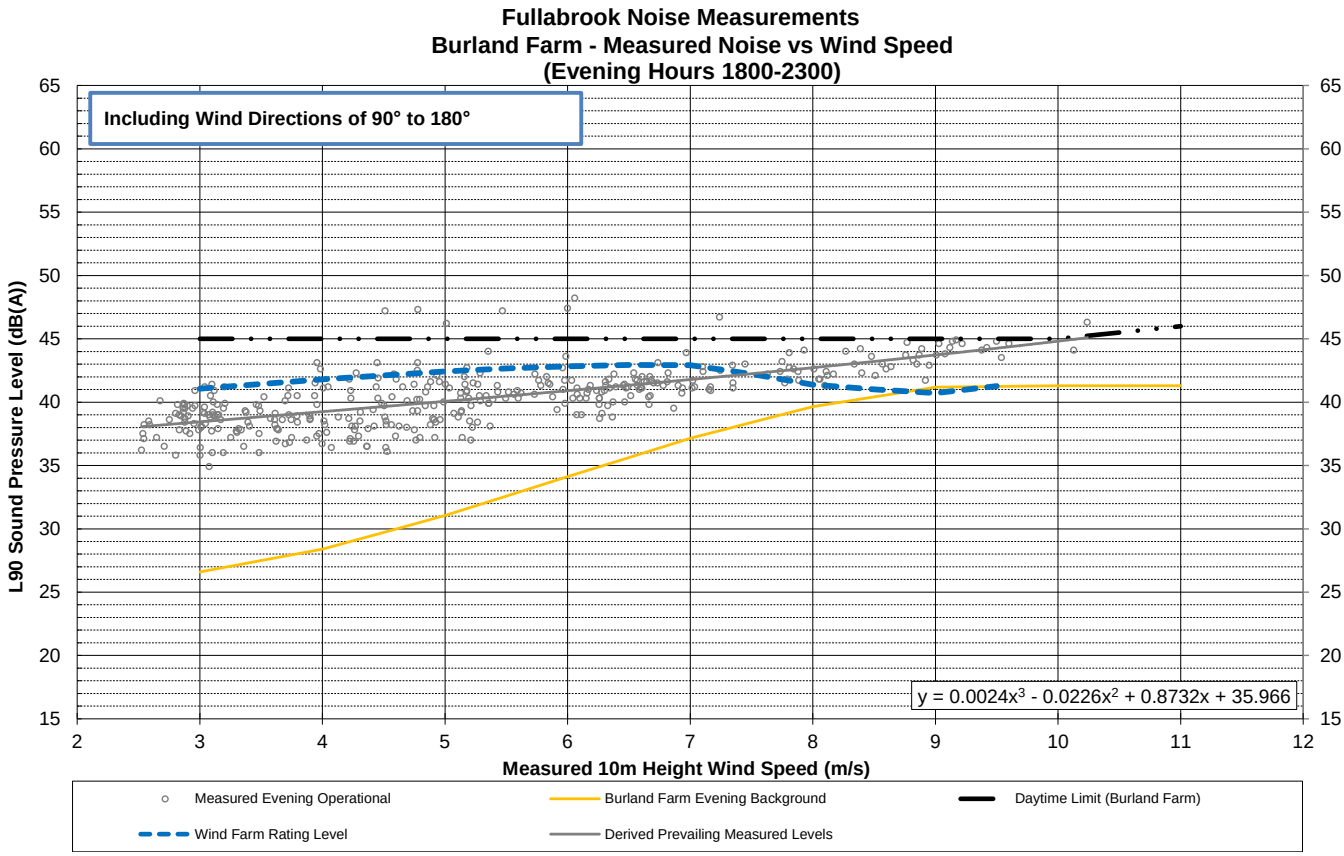
Table 22 – Noise Compliance Assessment Results (dB) – Patsford, Evening

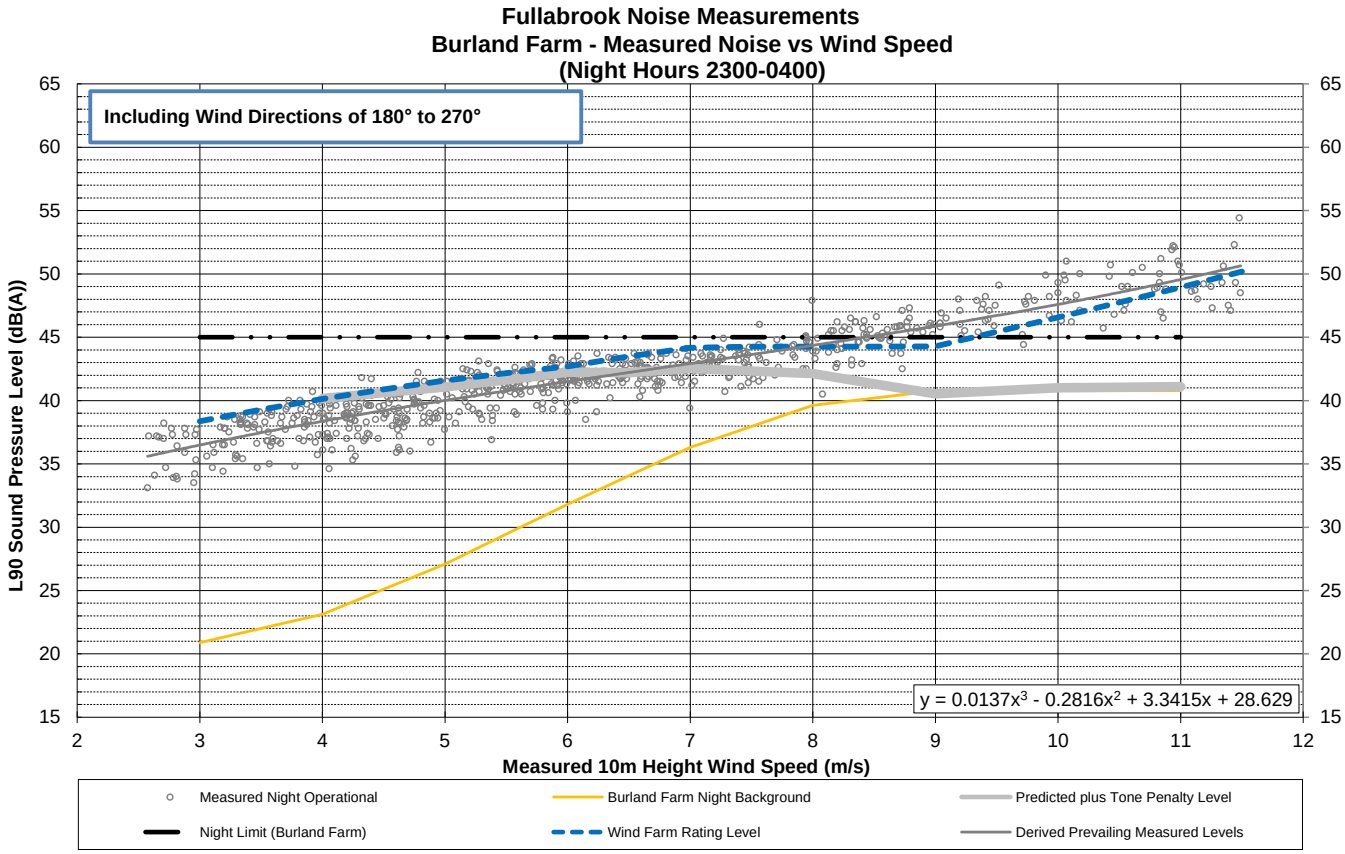
Sector	Noise Assessment Data	Wind Speed (10m height)								
		3	4	5	6	7	8	9	10	11
Sector 1	Wind Farm Noise Level (dB)	33.3	34.6	35.9	37.1	37.6	36.7	-	-	-
	No. Valid Data Points	108	144	70	38	16	11	3	0	0
	Tonal penalty (dB)	2.9	2.6	2.2	1.9	1.6	0.0	-	-	-
	Wind Farm Rating Level (dB)	36.2	37.2	38.2	39.0	39.2	36.7	-	-	-
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	41.0	43.0	45.0	45.0	45.0
	Noise Limit Exceeded By	-3.8	-2.8	-1.8	-1.0	-1.8	-6.3	-	-	-
Sector 2	Wind Farm Noise Level (dB)	35.6	35.6	35.8	36.0	35.9	35.2	36.3	-	-
	No. Valid Data Points	77	64	77	54	41	23	22	4	0
	Tonal penalty (dB)	2.6	2.2	1.7	0.0	0.0	2.0	3.3	-	-
	Wind Farm Rating Level (dB)	38.2	37.8	37.5	36.0	35.9	37.2	39.7	-	-
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	41.0	43.0	45.0	45.0	45.0
	Noise Limit Exceeded By	-1.8	-2.2	-2.5	-4.0	-5.1	-5.8	-5.3	-	-
Sector 3	Wind Farm Noise Level (dB)	33.9	35.7	37.1	38.1	38.8	38.8	38.0	38.6	39.0
	No. Valid Data Points	33	185	273	255	162	115	84	66	24
	Tonal penalty (dB)	1.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Wind Farm Rating Level (dB)	35.9	37.3	37.1	38.1	38.8	38.8	38.0	38.6	39.0
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	41.0	43.0	45.0	45.0	45.0
	Noise Limit Exceeded By	-4.1	-2.7	-2.9	-1.9	-2.2	-4.2	-7.0	-6.4	-6.0
Sector 4	Wind Farm Noise Level (dB)	-	35.6	36.5	37.4	37.9	-	-	-	-
	No. Valid Data Points	9	45	98	65	56	6	3	0	0
	Tonal penalty (dB)	-	0.0	0.0	0.0	0.0	-	-	-	-
	Wind Farm Rating Level (dB)	-	35.6	36.5	37.4	37.9	-	-	-	-
	Relevant Noise Limit (dB)	40.0	40.0	40.0	40.0	41.0	43.0	45.0	45.0	45.0
	Noise Limit Exceeded By	-	-4.4	-3.5	-2.6	-3.1	-	-	-	-

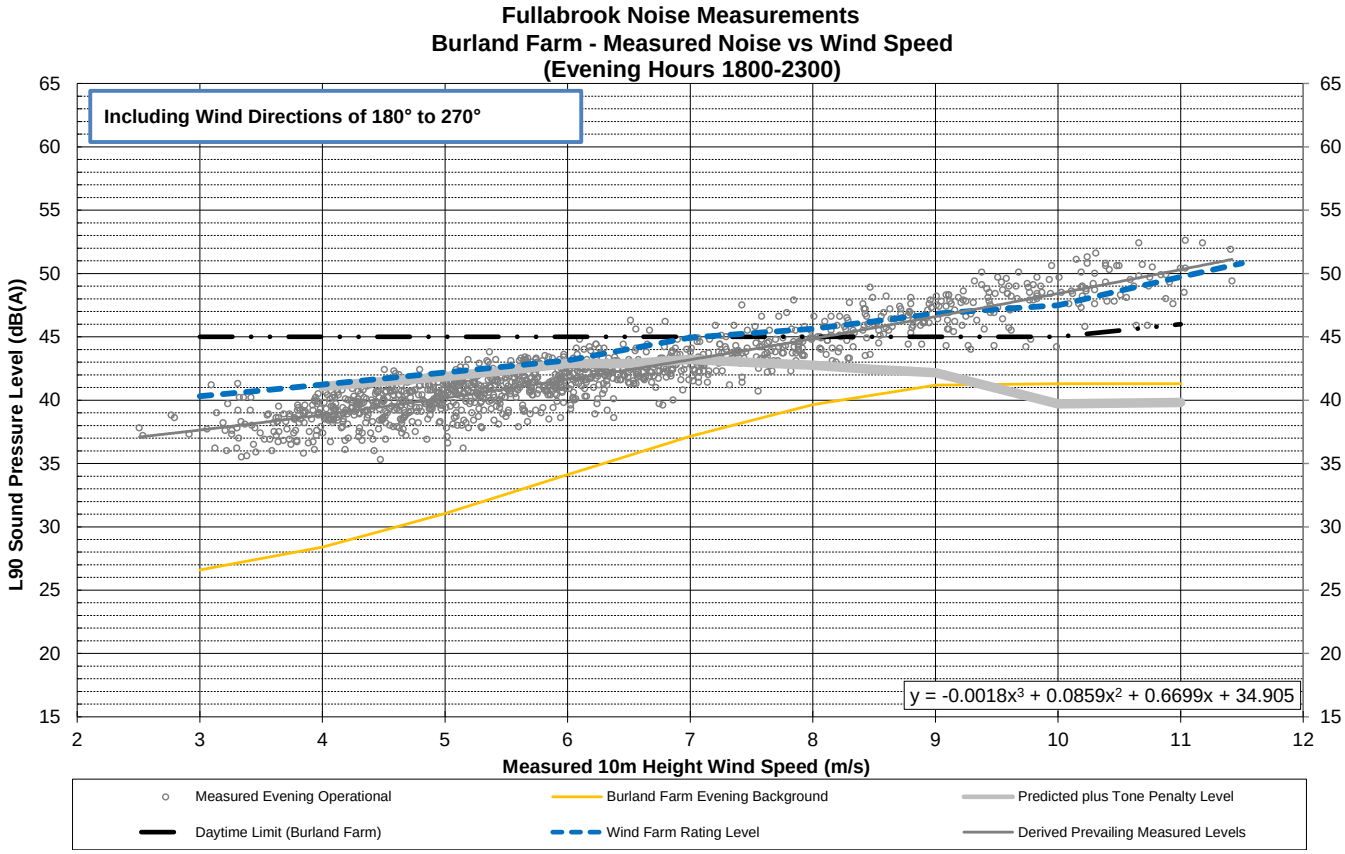

Fullabrook Noise Measurements
Burland Farm - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.1658x³ - 2.3565x² + 11.954x + 16.806
Measured Night Operational
Burland Farm Night Background
Predicted plus Tone Penalty Level
Night Limit (Burland Farm)
Wind Farm Rating Level
Derived Prevailing Measured Levels

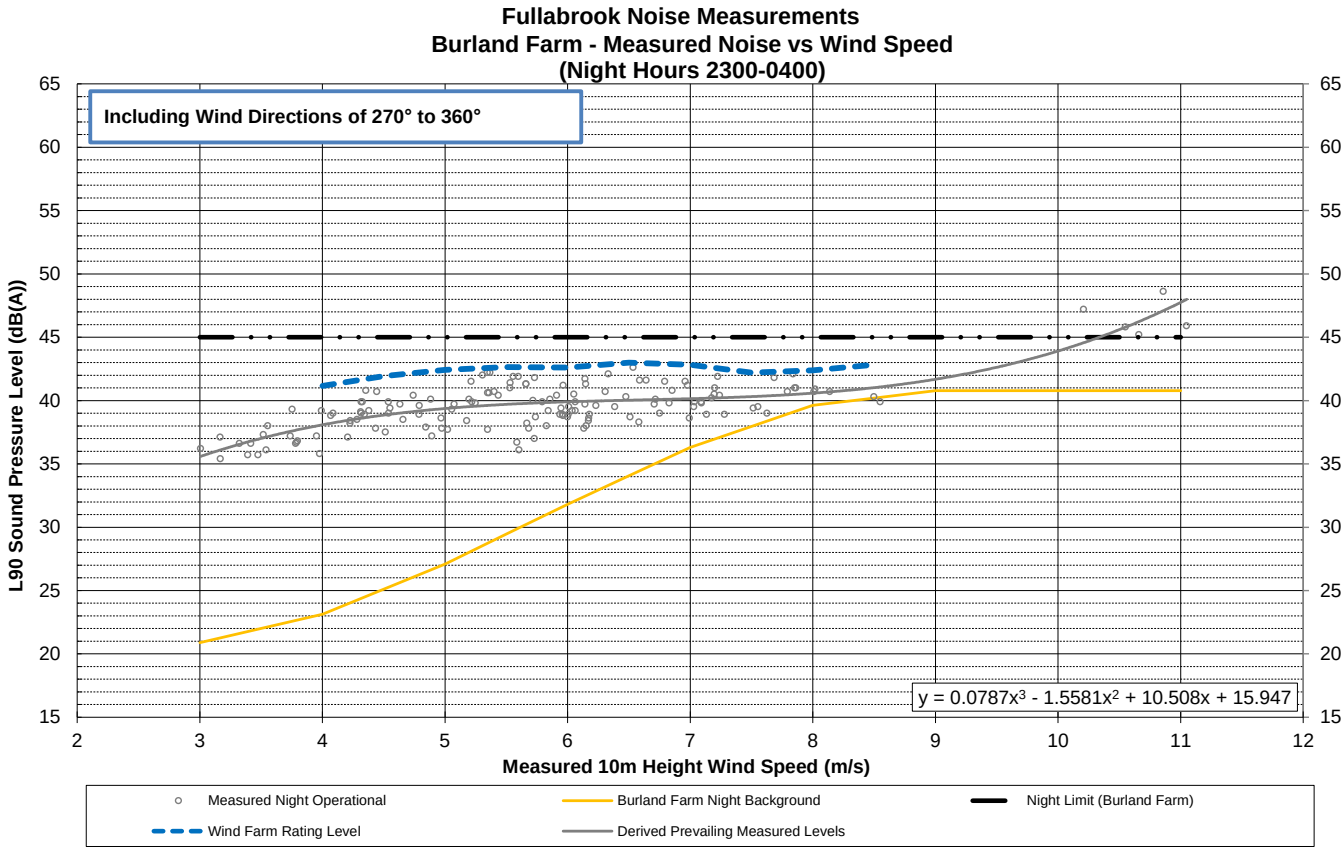

Fullabrook Noise Measurements
Burland Farm - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.1223x³ + 1.8901x² - 7.6882x + 45.652
Measured Evening Operational
Burland Farm Evening Background
Daytime Limit (Burland Farm)
Wind Farm Rating Level
Derived Prevailing Measured Levels

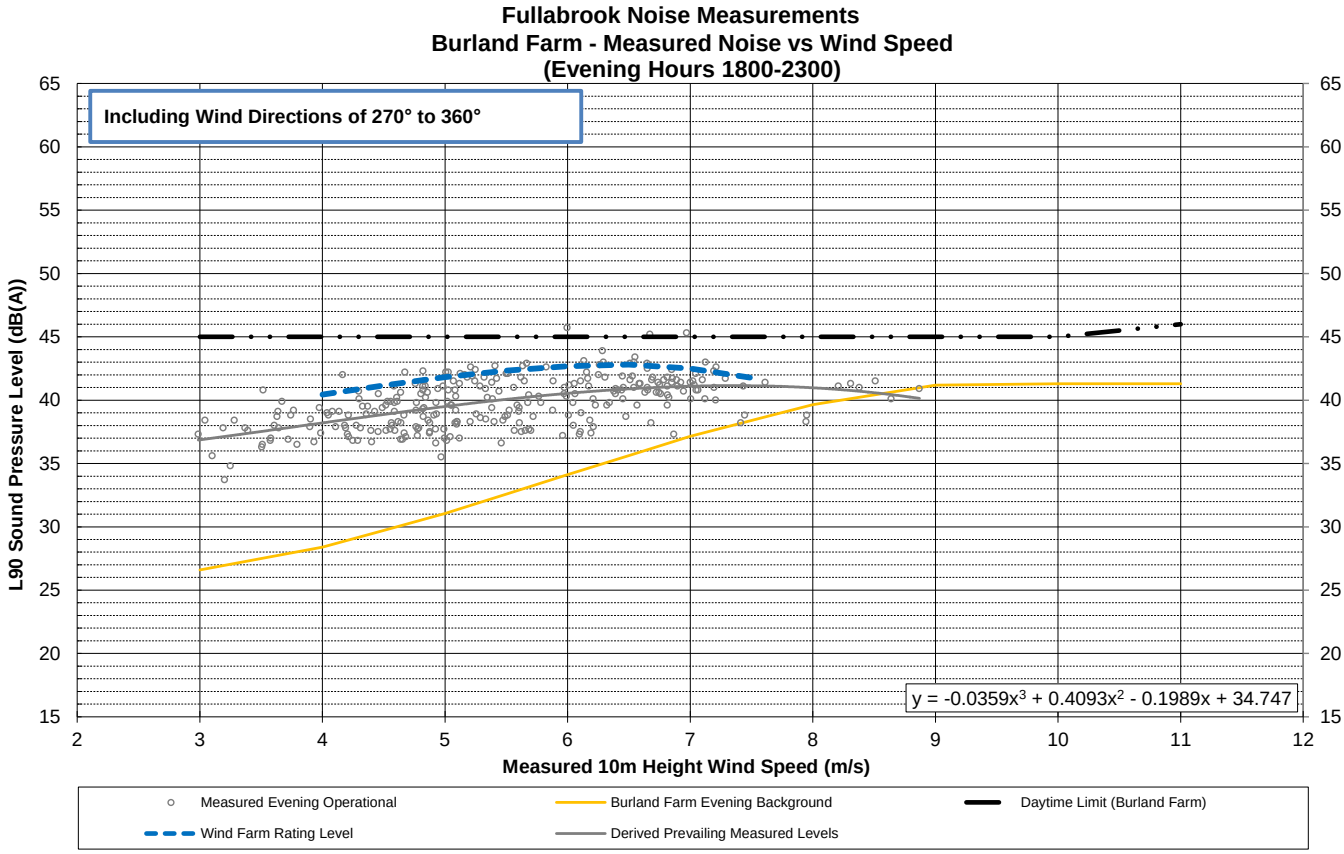

Fullabrook Noise Measurements
Burland Farm - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0308x³ - 0.4509x² + 2.5293x + 35.097
Measured Night Operational
Burland Farm Night Background
Night Limit (Burland Farm)
Wind Farm Rating Level
Derived Prevailing Measured Levels

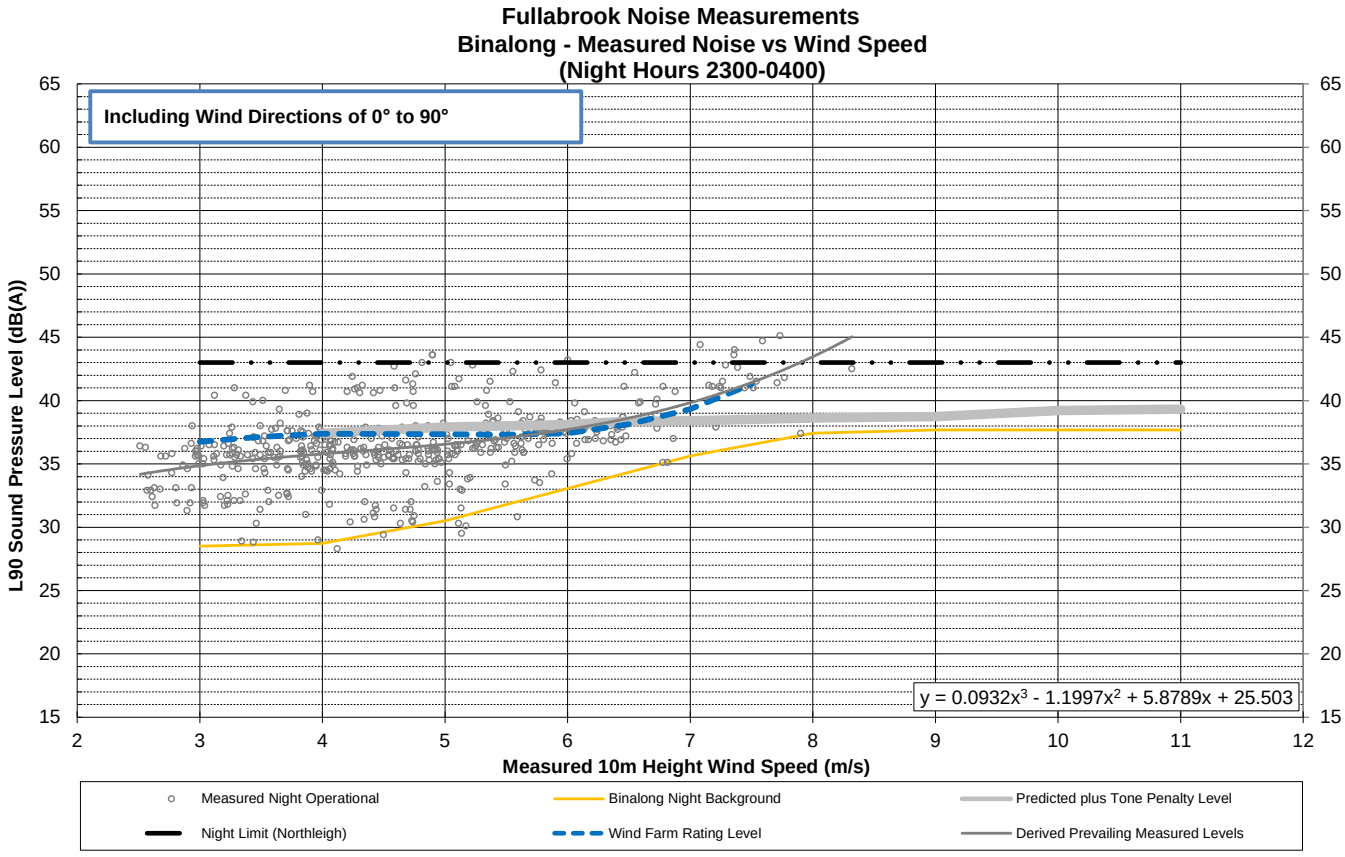

Fullabrook Noise Measurements
Burland Farm - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0024x³ - 0.0226x² + 0.8732x + 35.966
Measured Evening Operational
Burland Farm Evening Background
Daytime Limit (Burland Farm)
Wind Farm Rating Level
Derived Prevailing Measured Levels

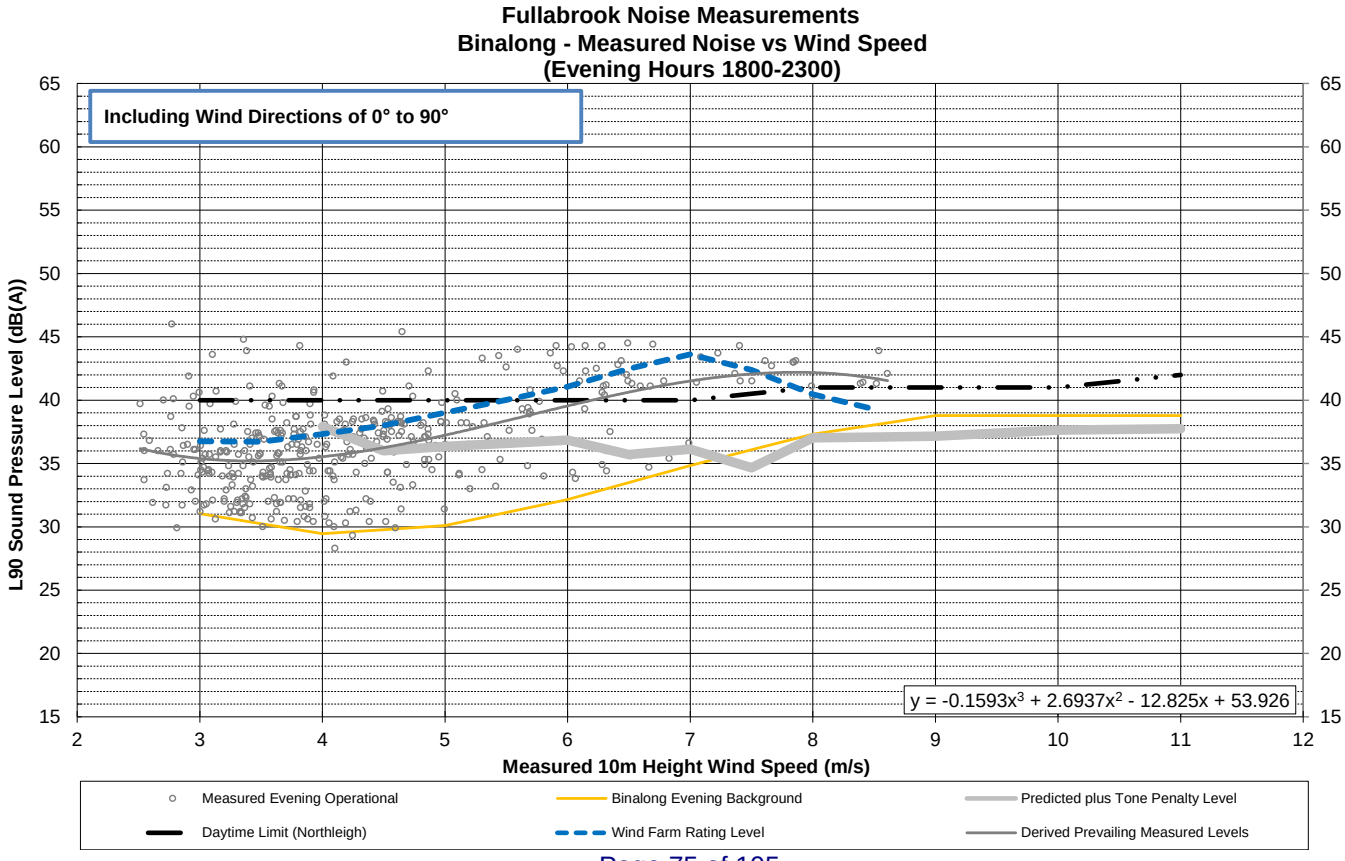

Fullabrook Noise Measurements
Burland Farm - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0137x³ - 0.2816x² + 3.3415x + 28.629
Measured Night Operational
Burland Farm Night Background
Predicted plus Tone Penalty Level
Night Limit (Burland Farm)
Wind Farm Rating Level
Derived Prevailing Measured Levels

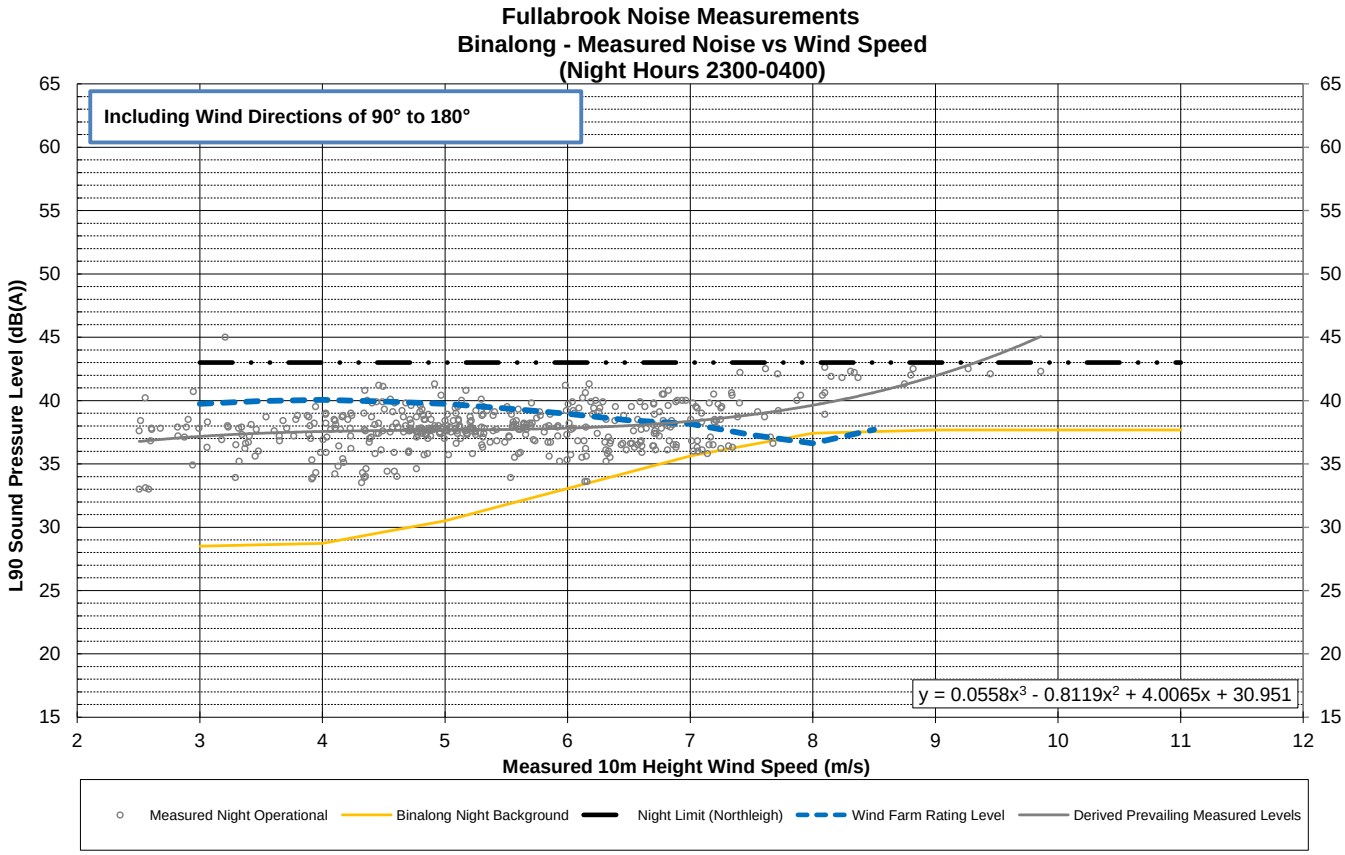

Fullabrook Noise Measurements
Burland Farm - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0018x³ + 0.0859x² + 0.6699x + 34.905
Measured Evening Operational
Burland Farm Evening Background
Predicted plus Tone Penalty Level
Daytime Limit (Burland Farm)
Wind Farm Rating Level
Derived Prevailing Measured Levels

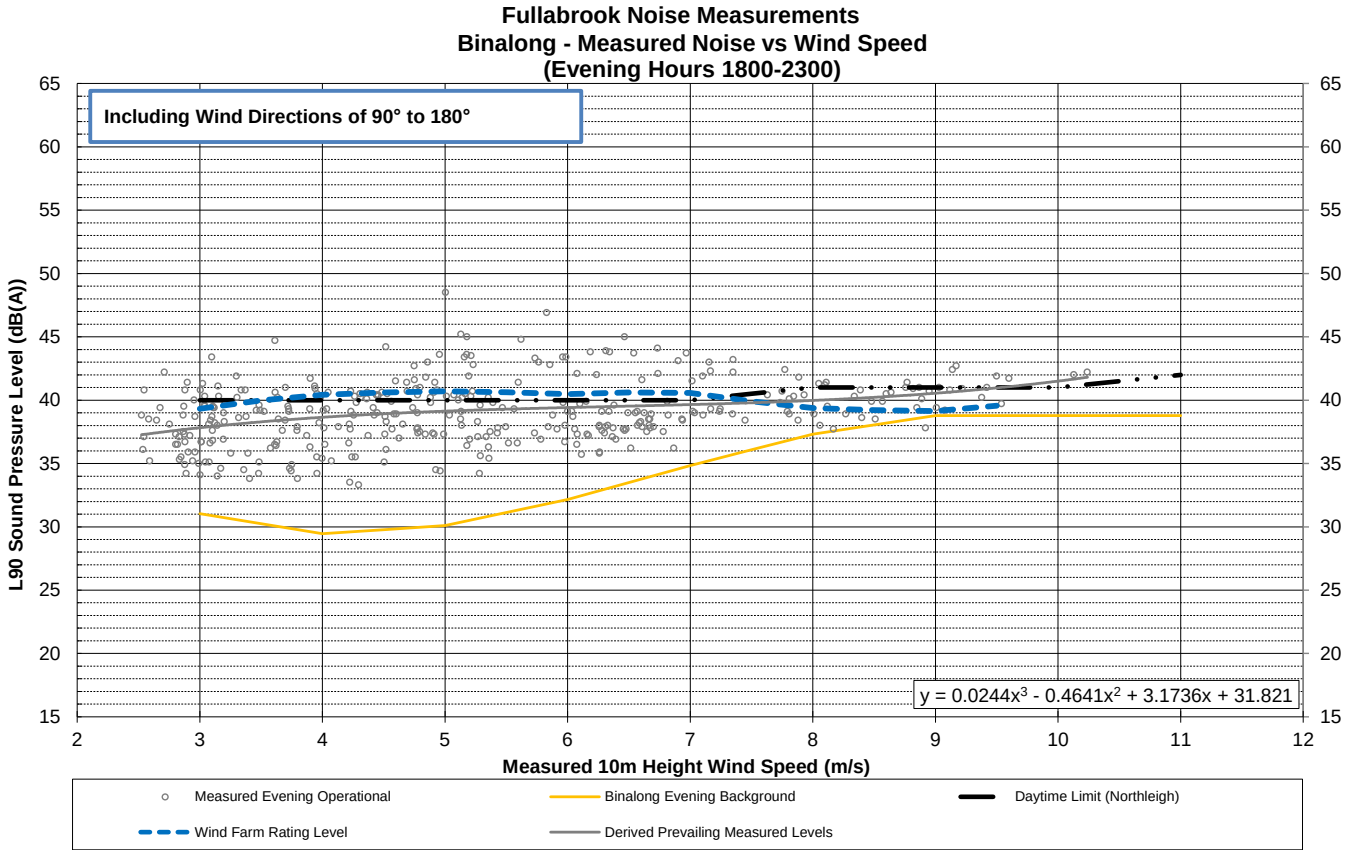

Fullabrook Noise Measurements
Burland Farm - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0787x³ - 1.5581x² + 10.508x + 15.947
Measured Night Operational
Burland Farm Night Background
Night Limit (Burland Farm)
Wind Farm Rating Level
Derived Prevailing Measured Levels

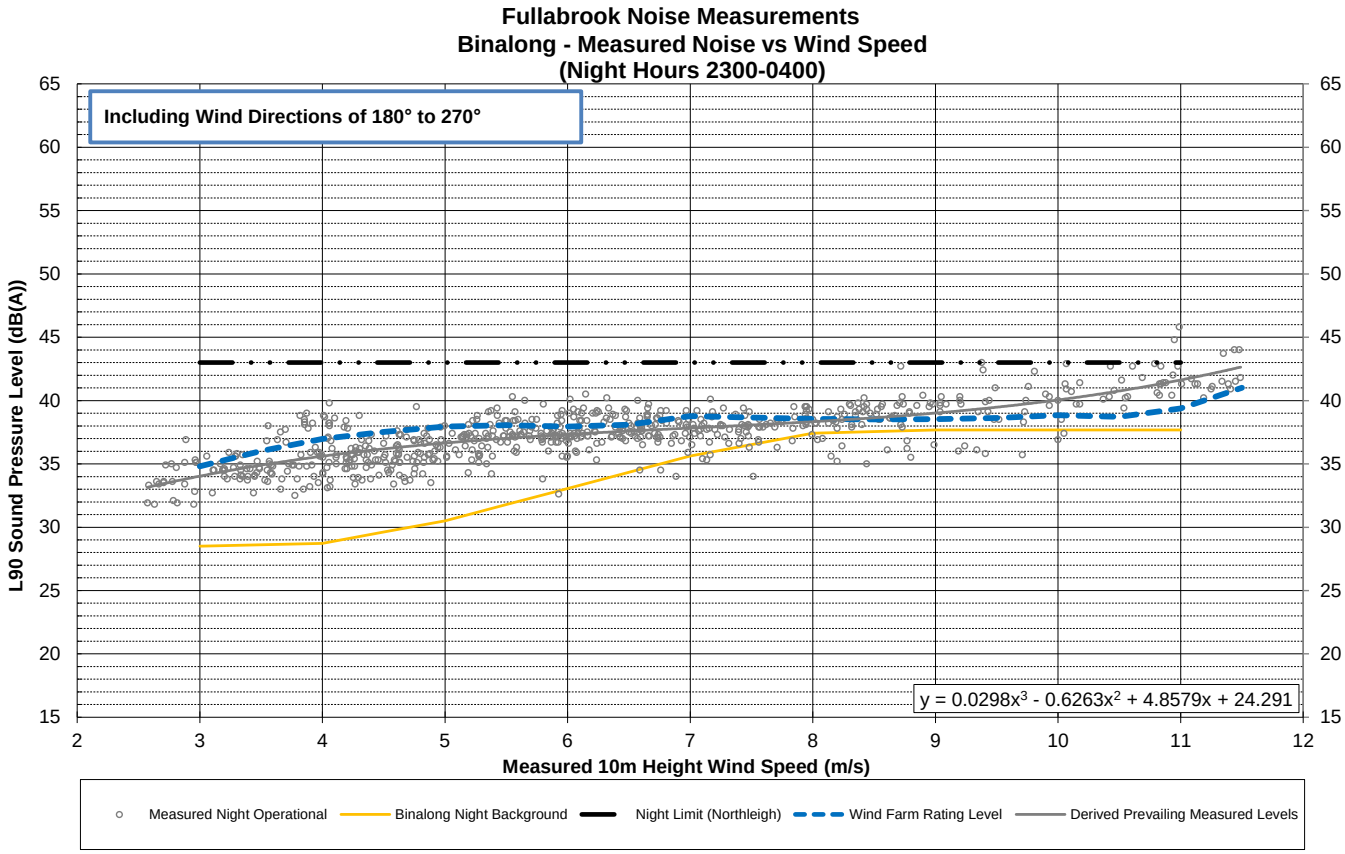

Fullabrook Noise Measurements
Burland Farm - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0359x³ + 0.4093x² - 0.1989x + 34.747
Measured Evening Operational
Burland Farm Evening Background
Daytime Limit (Burland Farm)
Wind Farm Rating Level
Derived Prevailing Measured Levels

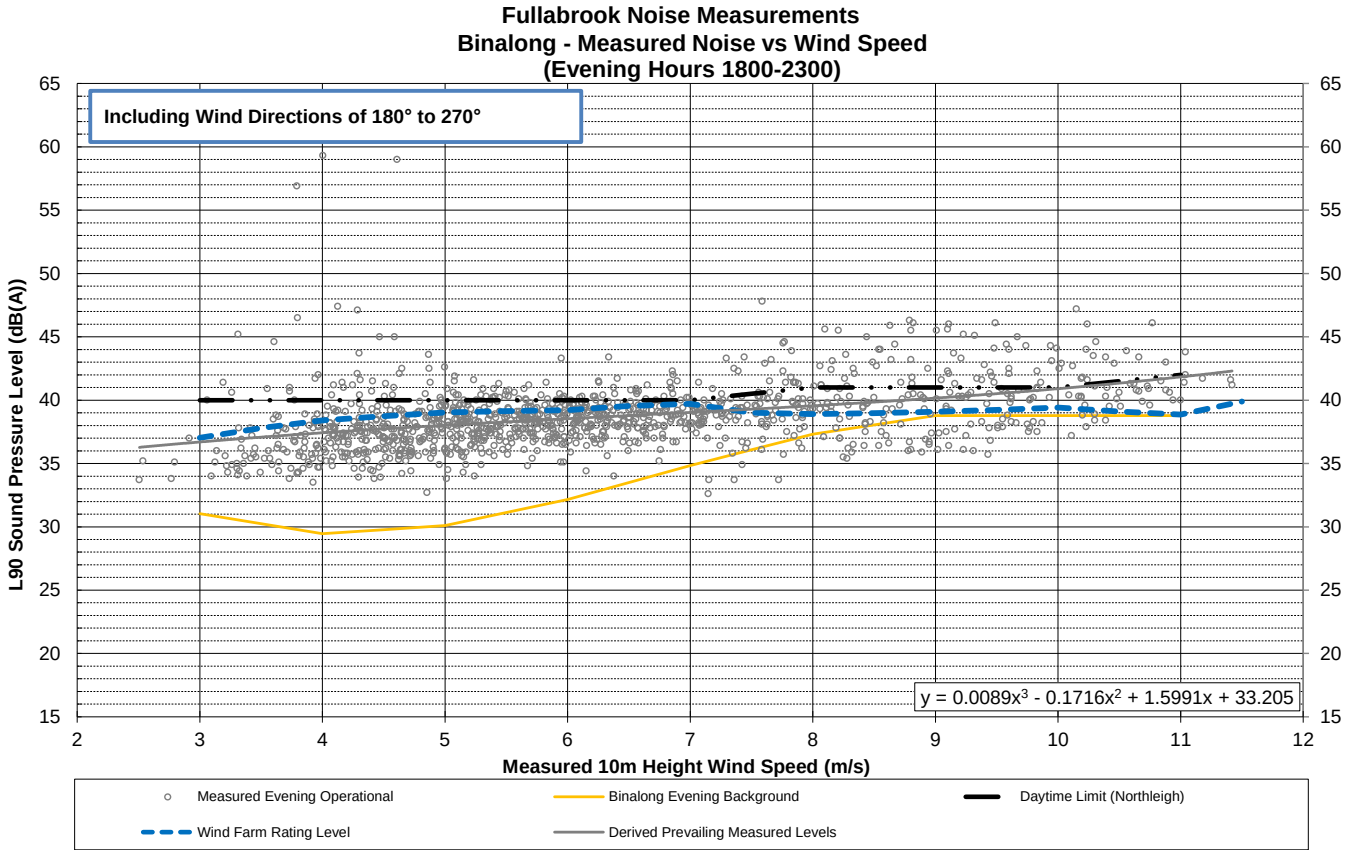

Fullabrook Noise Measurements
Binalong - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0932x³ - 1.1997x² + 5.8789x + 25.503
Measured Night Operational
Binalong Night Background
Predicted plus Tone Penalty Level
Night Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

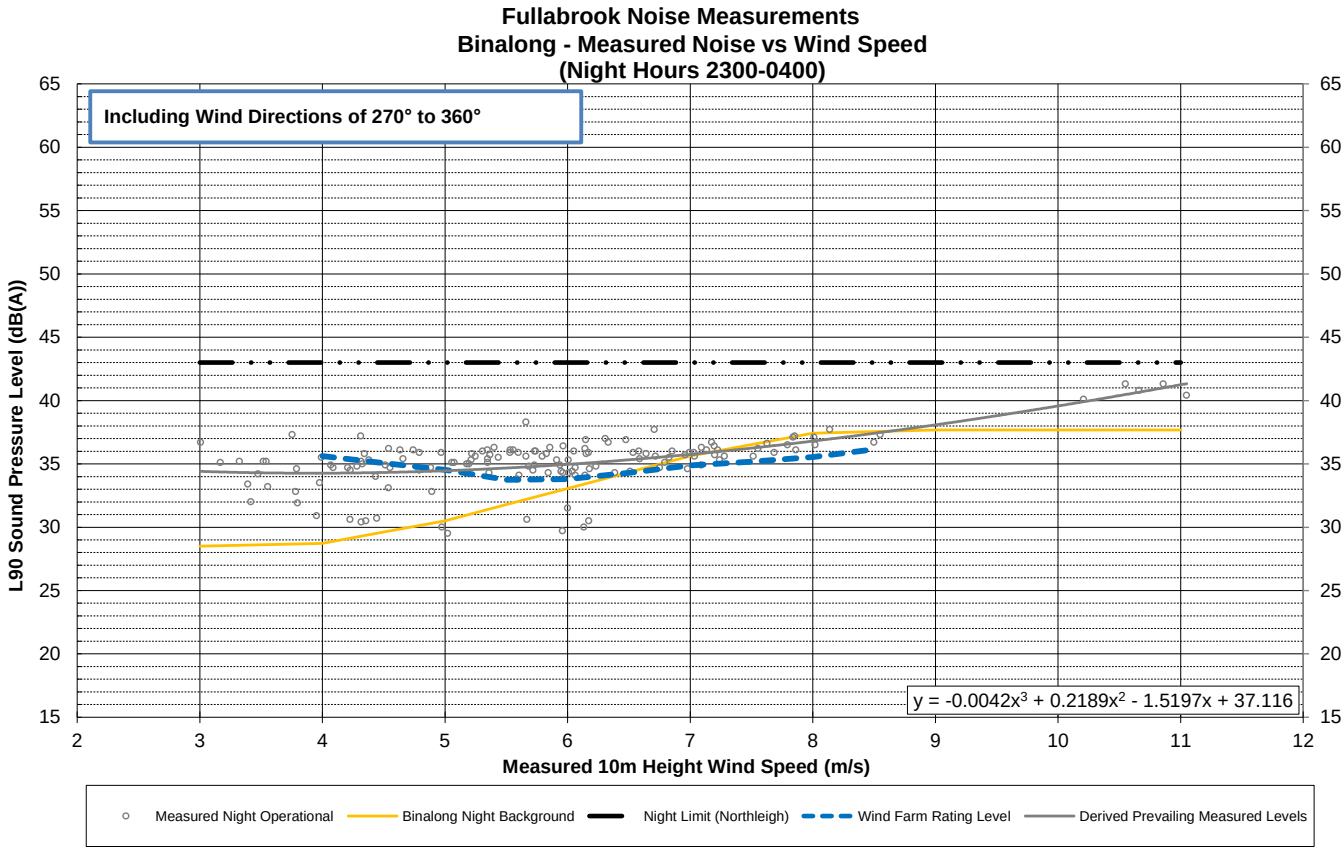

Fullabrook Noise Measurements
Binalong - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.1593x³ + 2.6937x² - 12.825x + 53.926
Measured Evening Operational
Binalong Evening Background
Predicted plus Tone Penalty Level
Daytime Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

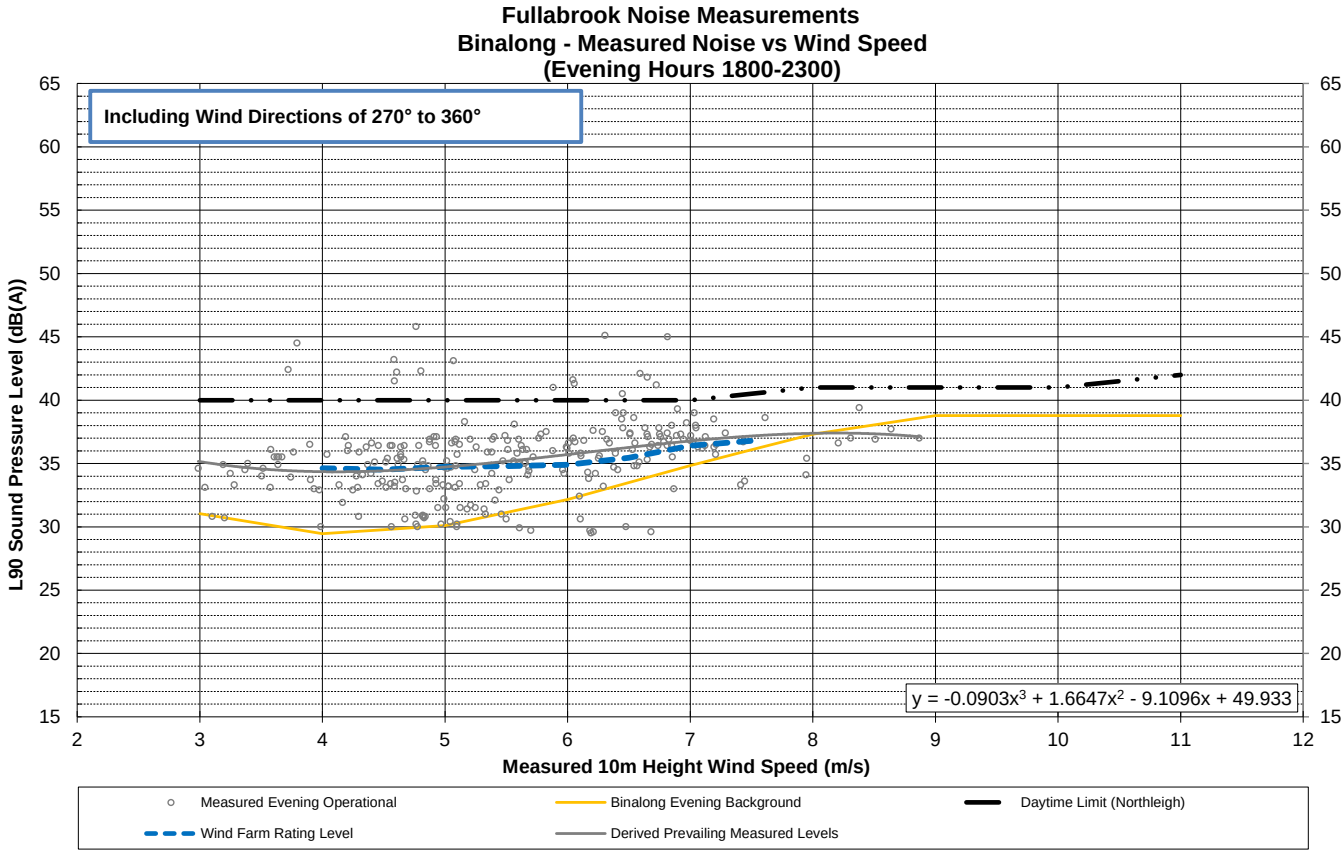

Fullabrook Noise Measurements
Binalong - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0558x³ - 0.8119x² + 4.0065x + 30.951
Measured Night Operational
Binalong Night Background
Night Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

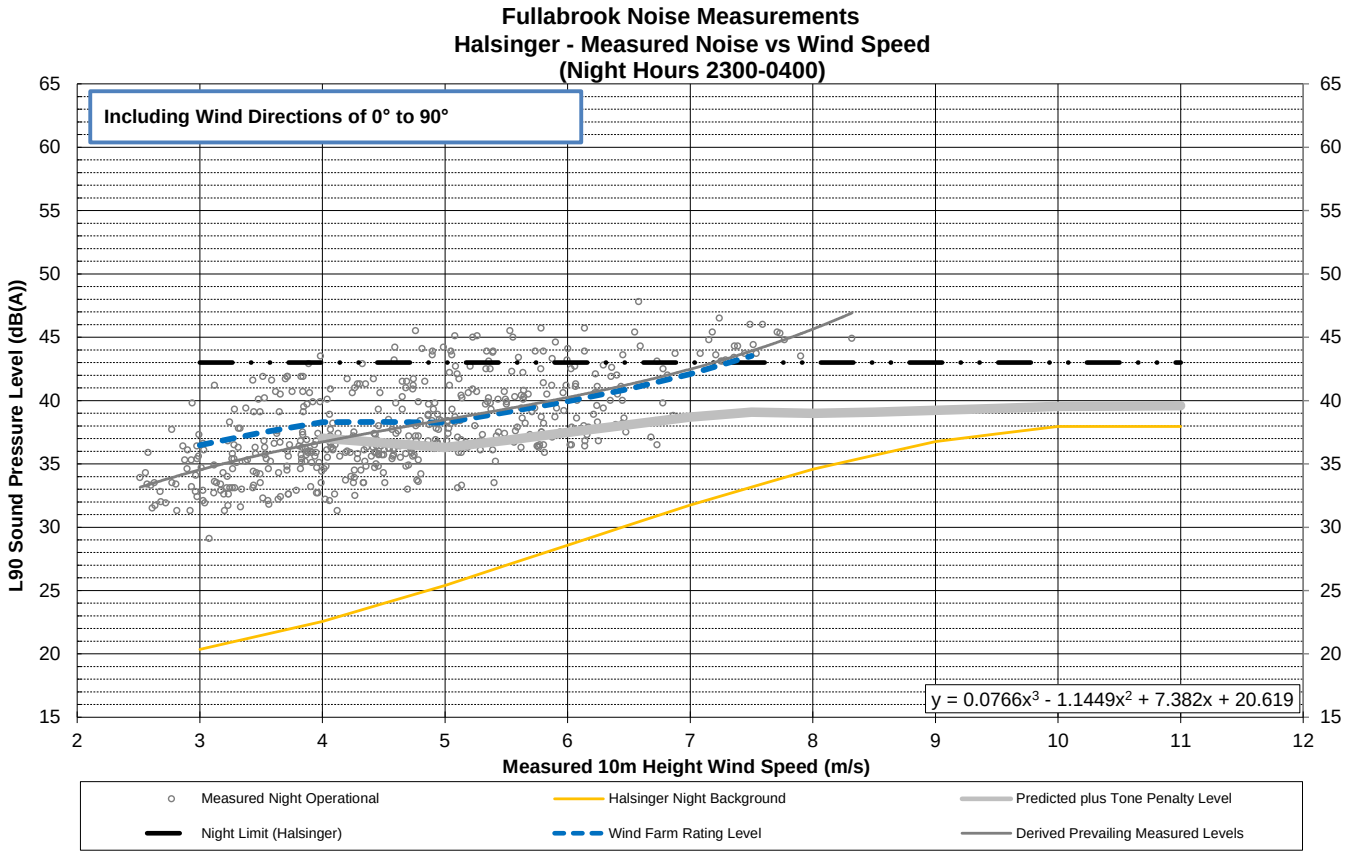

Fullabrook Noise Measurements
Binalong - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0244x³ - 0.4641x² + 3.1736x + 31.821
Measured Evening Operational
Binalong Evening Background
Daytime Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

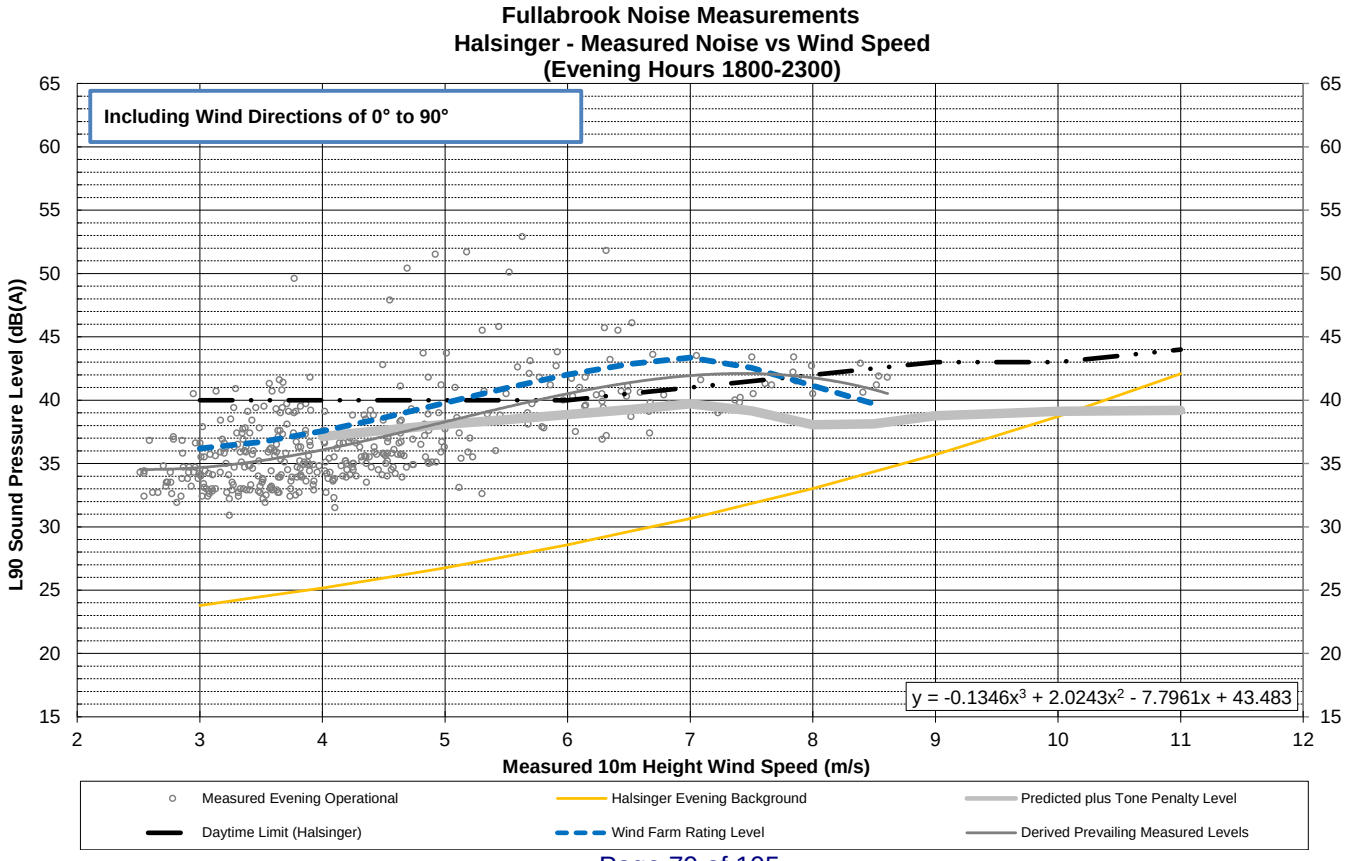

Fullabrook Noise Measurements
Binalong - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0298x³ - 0.6263x² + 4.8579x + 24.291
Measured Night Operational
Binalong Night Background
Night Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

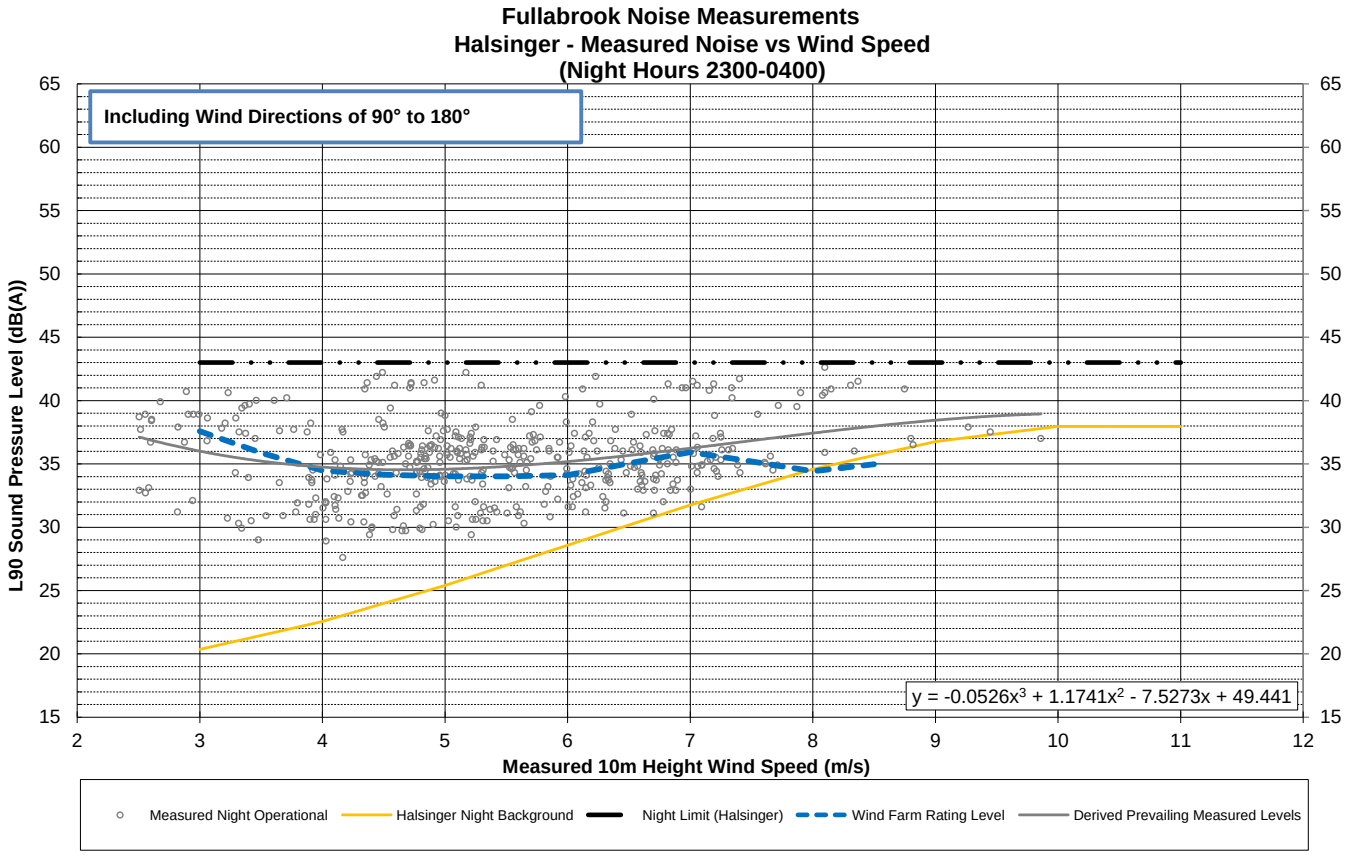

Fullabrook Noise Measurements
Binalong - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0089x³ - 0.1716x² + 1.5991x + 33.205
Measured Evening Operational
Binalong Evening Background
Daytime Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

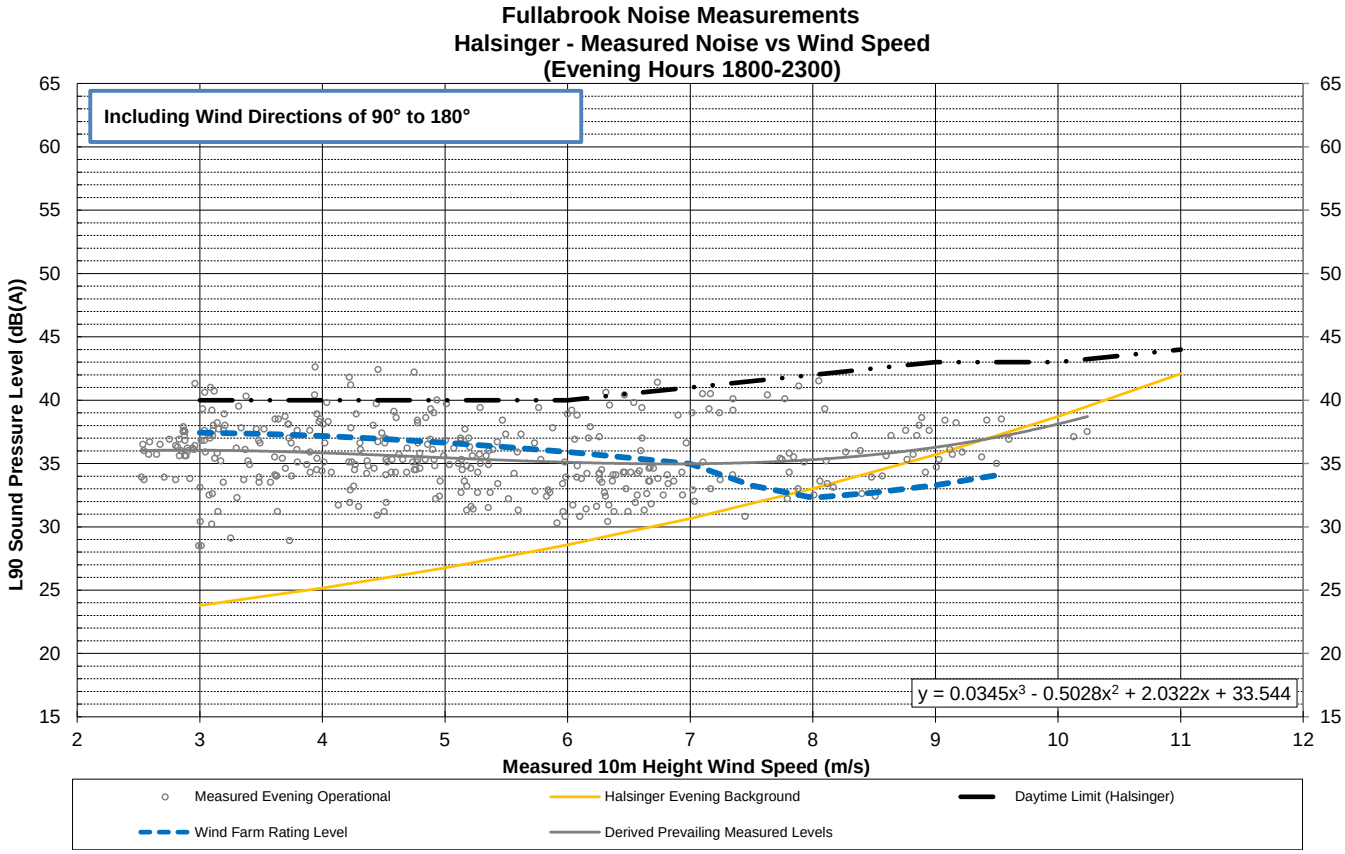

Fullabrook Noise Measurements
Binalong - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0042x³ + 0.2189x² - 1.5197x + 37.116
Measured Night Operational
Binalong Night Background
Night Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

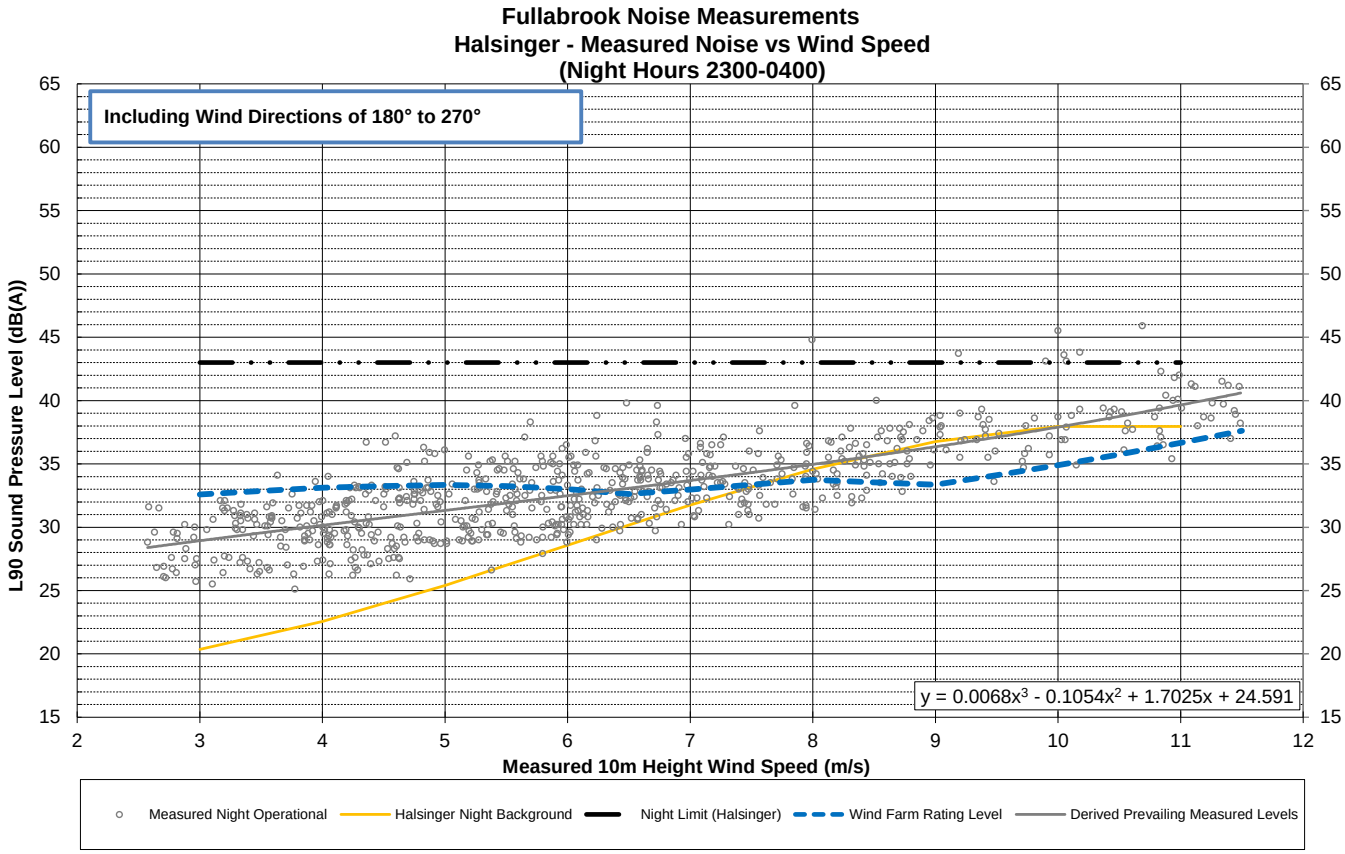

Fullabrook Noise Measurements
Binalong - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0903x³ + 1.6647x² - 9.1096x + 49.933
Measured Evening Operational
Binalong Evening Background
Daytime Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

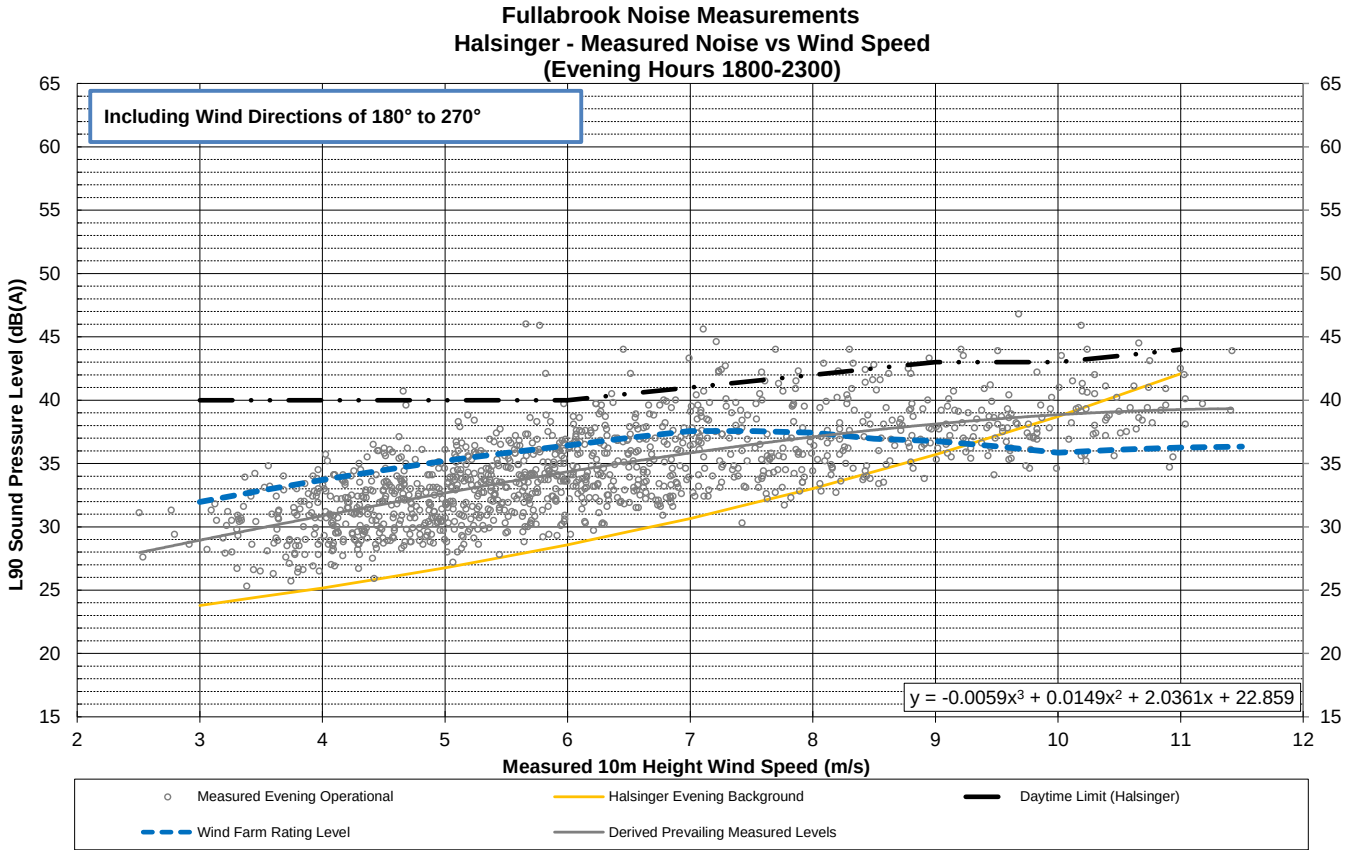

Fullabrook Noise Measurements
Halsinger - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0766x³ - 1.1449x² + 7.382x + 20.619
Measured Night Operational
Halsinger Night Background
Predicted plus Tone Penalty Level
Night Limit (Halsinger)
Wind Farm Rating Level
Derived Prevailing Measured Levels

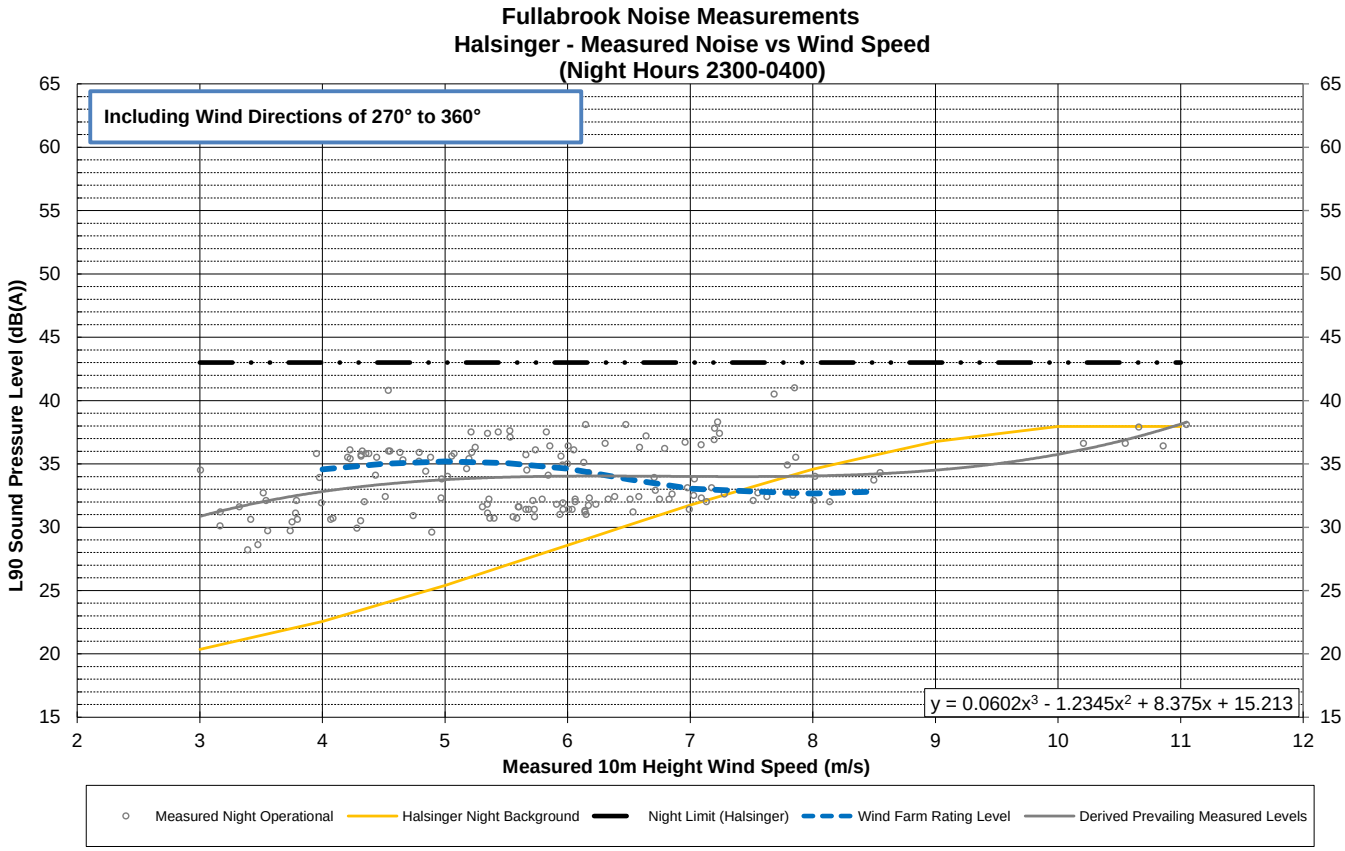

Fullabrook Noise Measurements
Halsinger - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.1346x³ + 2.0243x² - 7.7961x + 43.483
Measured Evening Operational
Halsinger Evening Background
Predicted plus Tone Penalty Level
Daytime Limit (Halsinger)
Wind Farm Rating Level
Derived Prevailing Measured Levels

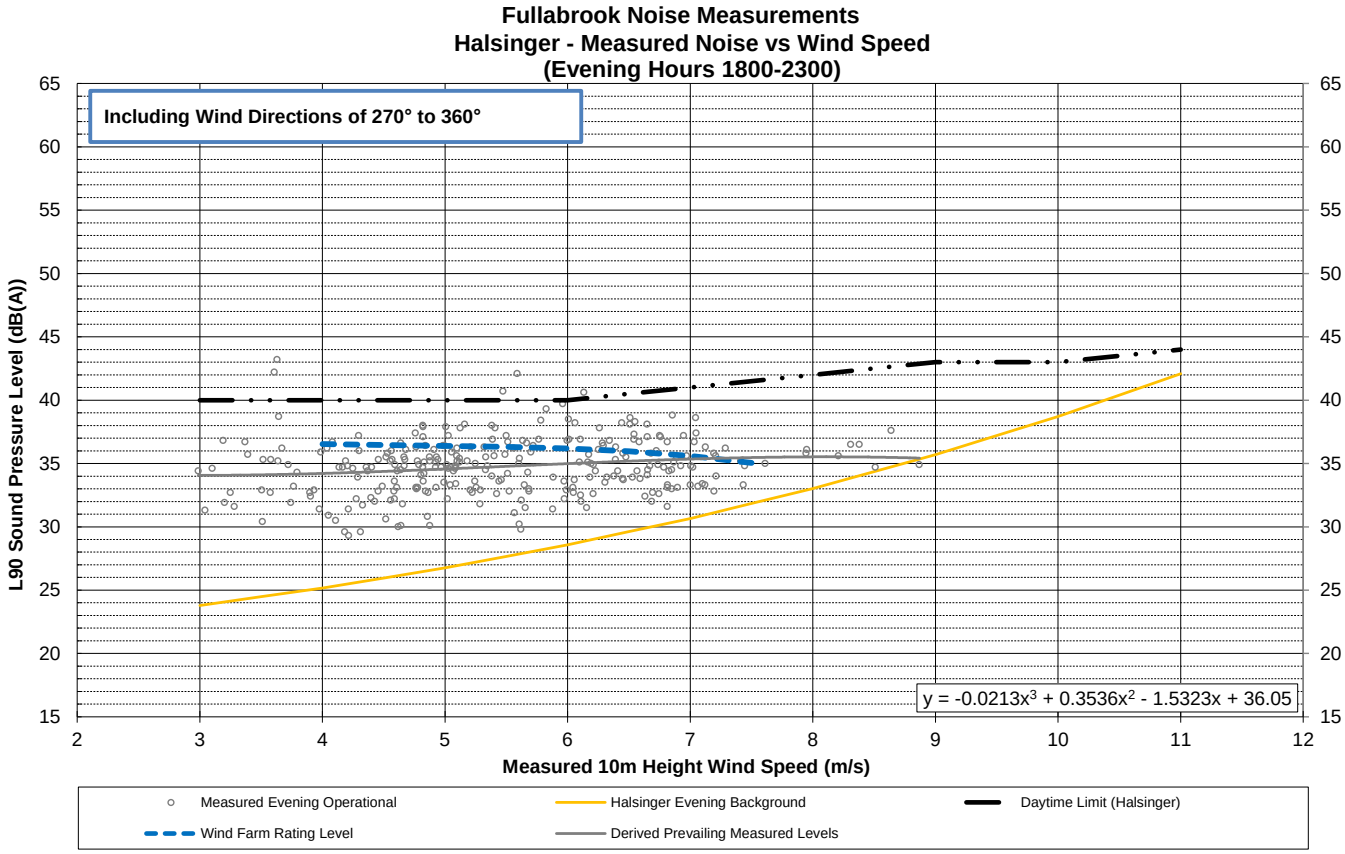

Fullabrook Noise Measurements
Halsinger - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0526x³ + 1.1741x² - 7.5273x + 49.441
Measured Night Operational
Halsinger Night Background
Night Limit (Halsinger)
Wind Farm Rating Level
Derived Prevailing Measured Levels

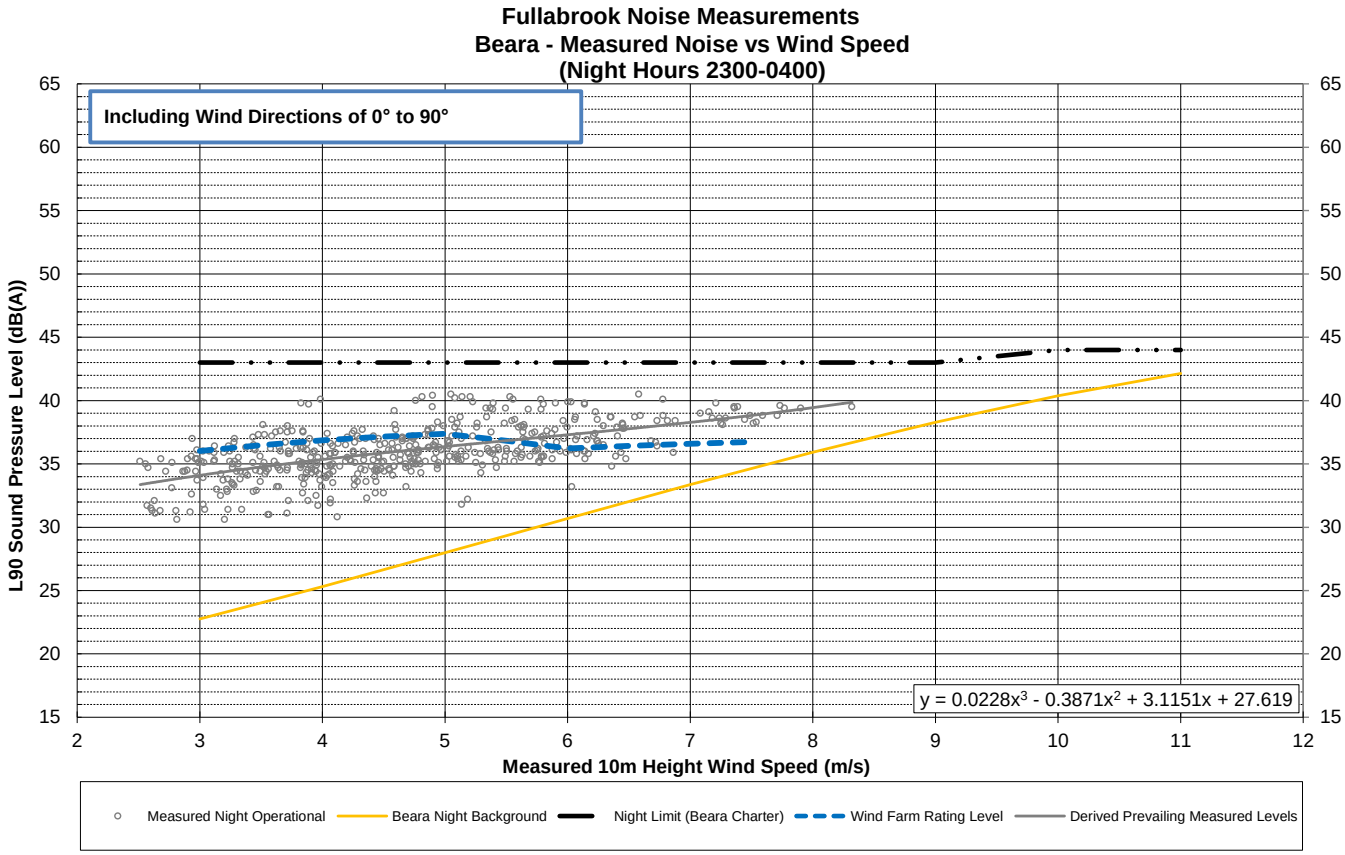

Fullabrook Noise Measurements
Halsinger - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0345x³ - 0.5028x² + 2.0322x + 33.544
Measured Evening Operational
Halsinger Evening Background
Daytime Limit (Halsinger)
Wind Farm Rating Level
Derived Prevailing Measured Levels

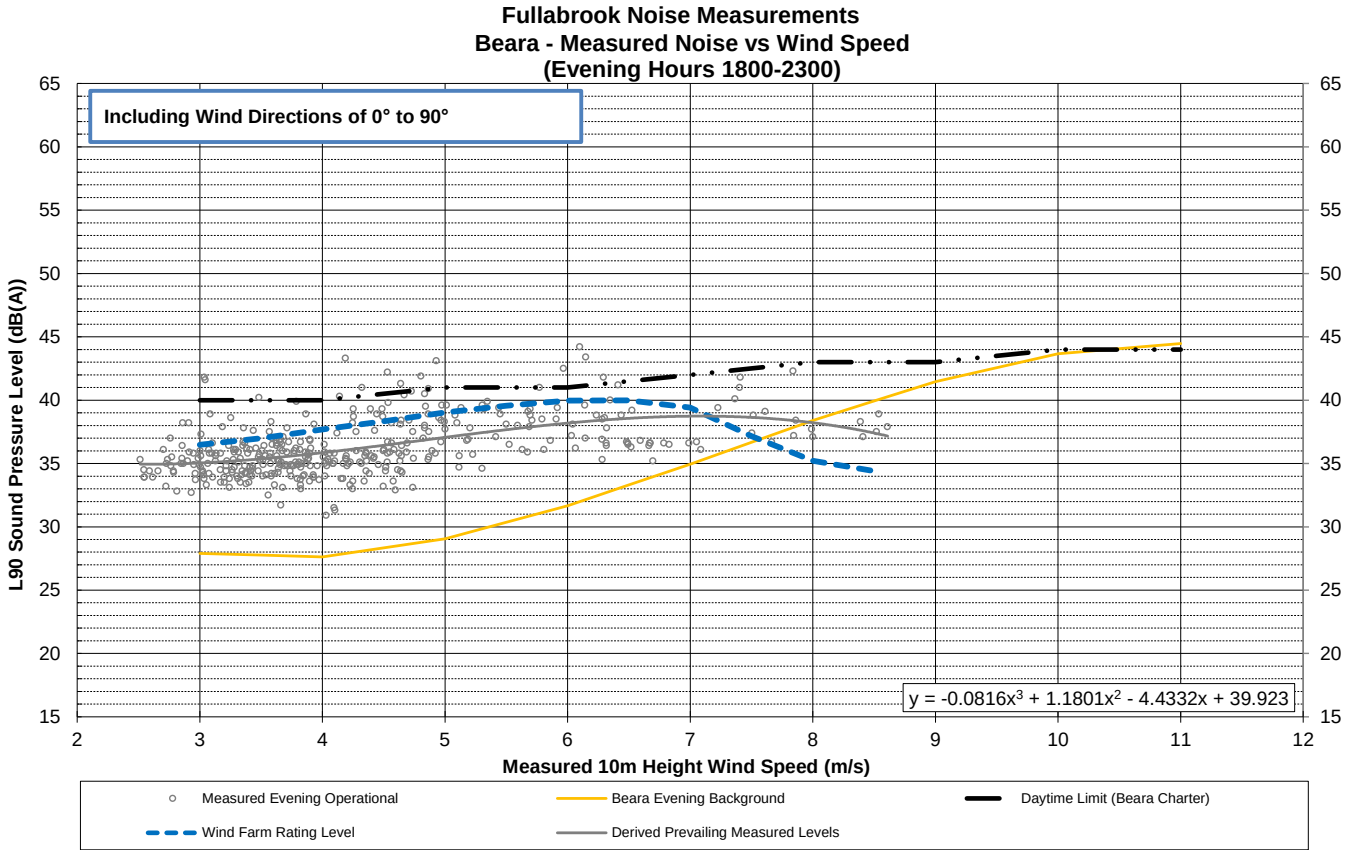

Fullabrook Noise Measurements
Halsinger - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0068x³ - 0.1054x² + 1.7025x + 24.591
Measured Night Operational
Halsinger Night Background
Night Limit (Halsinger)
Wind Farm Rating Level
Derived Prevailing Measured Levels

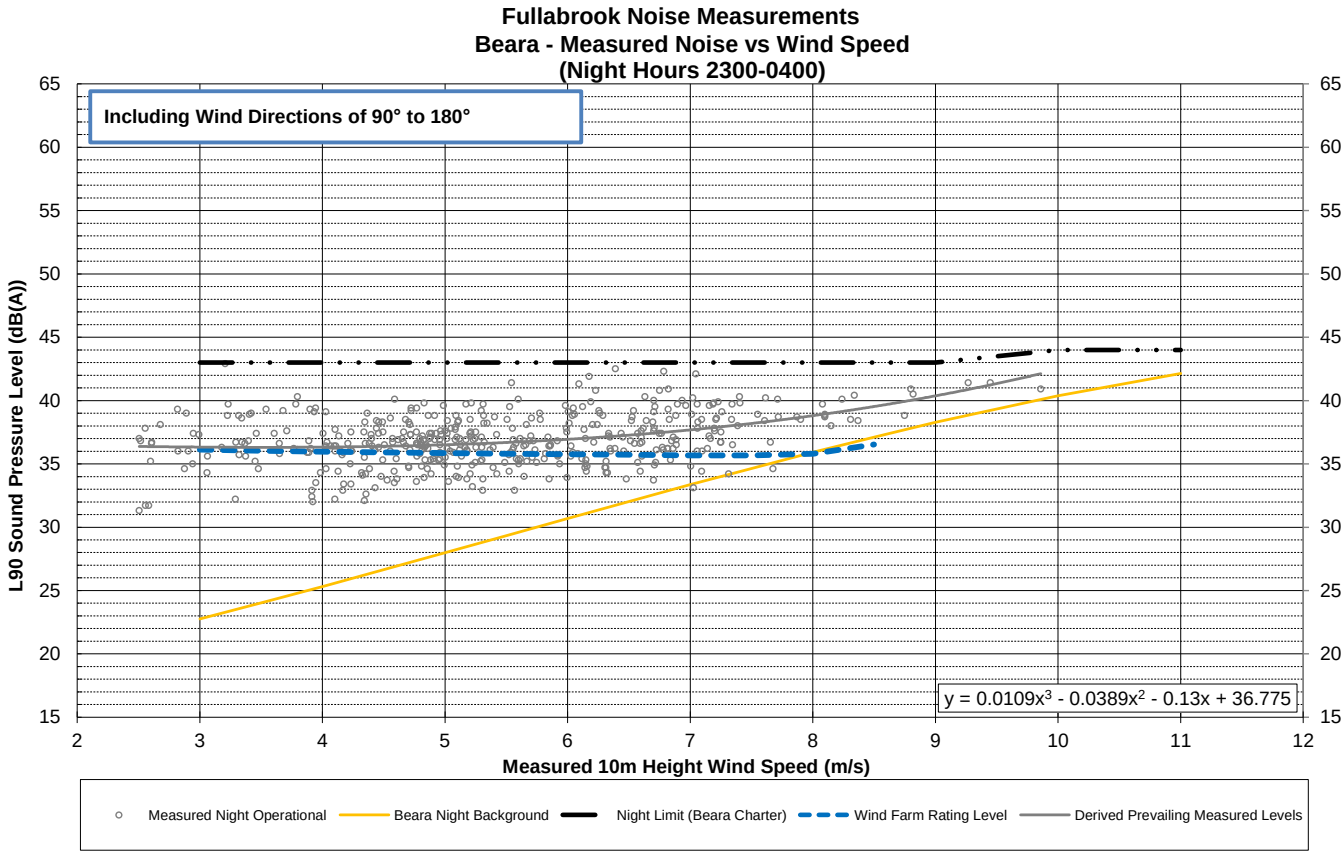

Fullabrook Noise Measurements
Halsinger - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0059x³ + 0.0149x² + 2.0361x + 22.859
Measured Evening Operational
Halsinger Evening Background
Daytime Limit (Halsinger)
Wind Farm Rating Level
Derived Prevailing Measured Levels

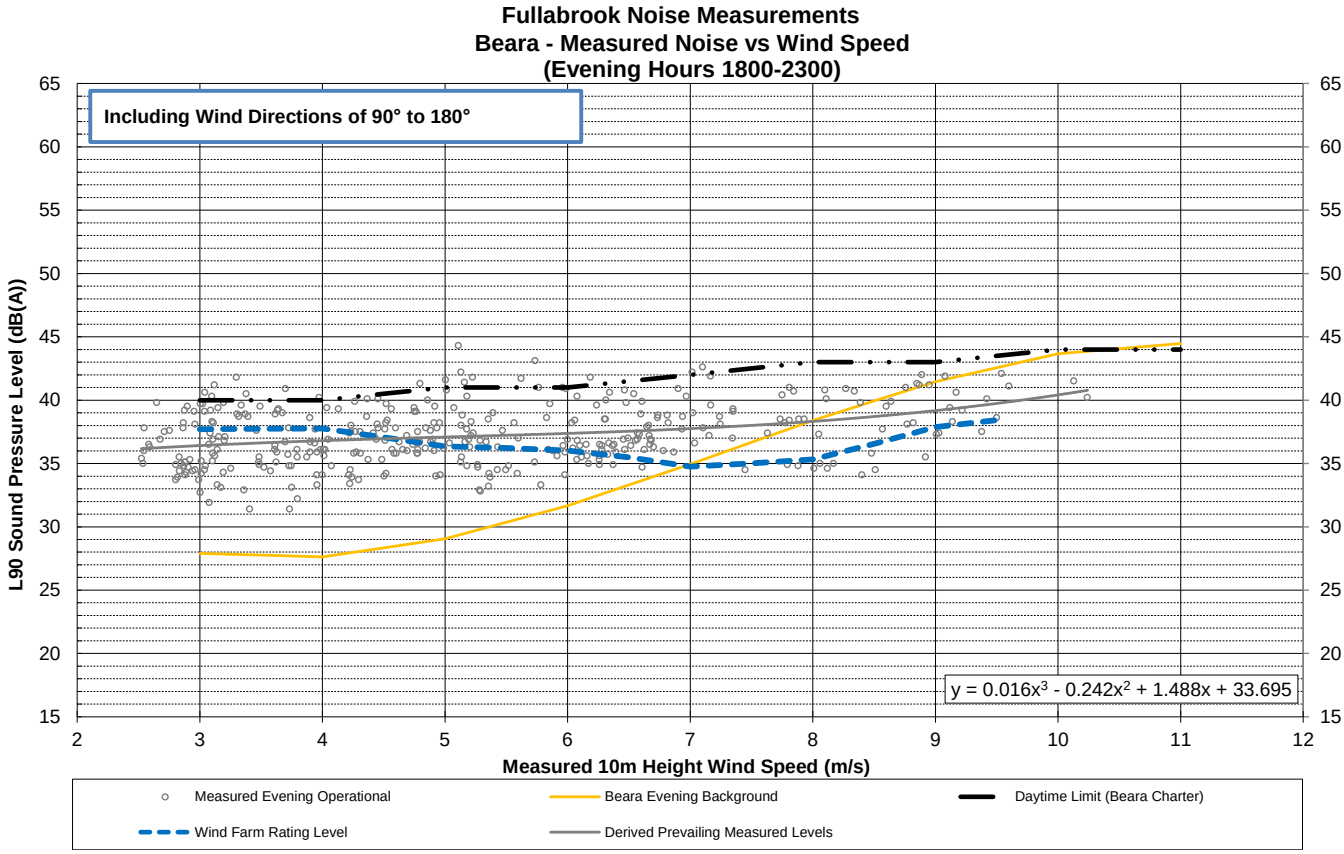

Fullabrook Noise Measurements
Halsinger - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0602x³ - 1.2345x² + 8.375x + 15.213
Measured Night Operational
Halsinger Night Background
Night Limit (Halsinger)
Wind Farm Rating Level
Derived Prevailing Measured Levels

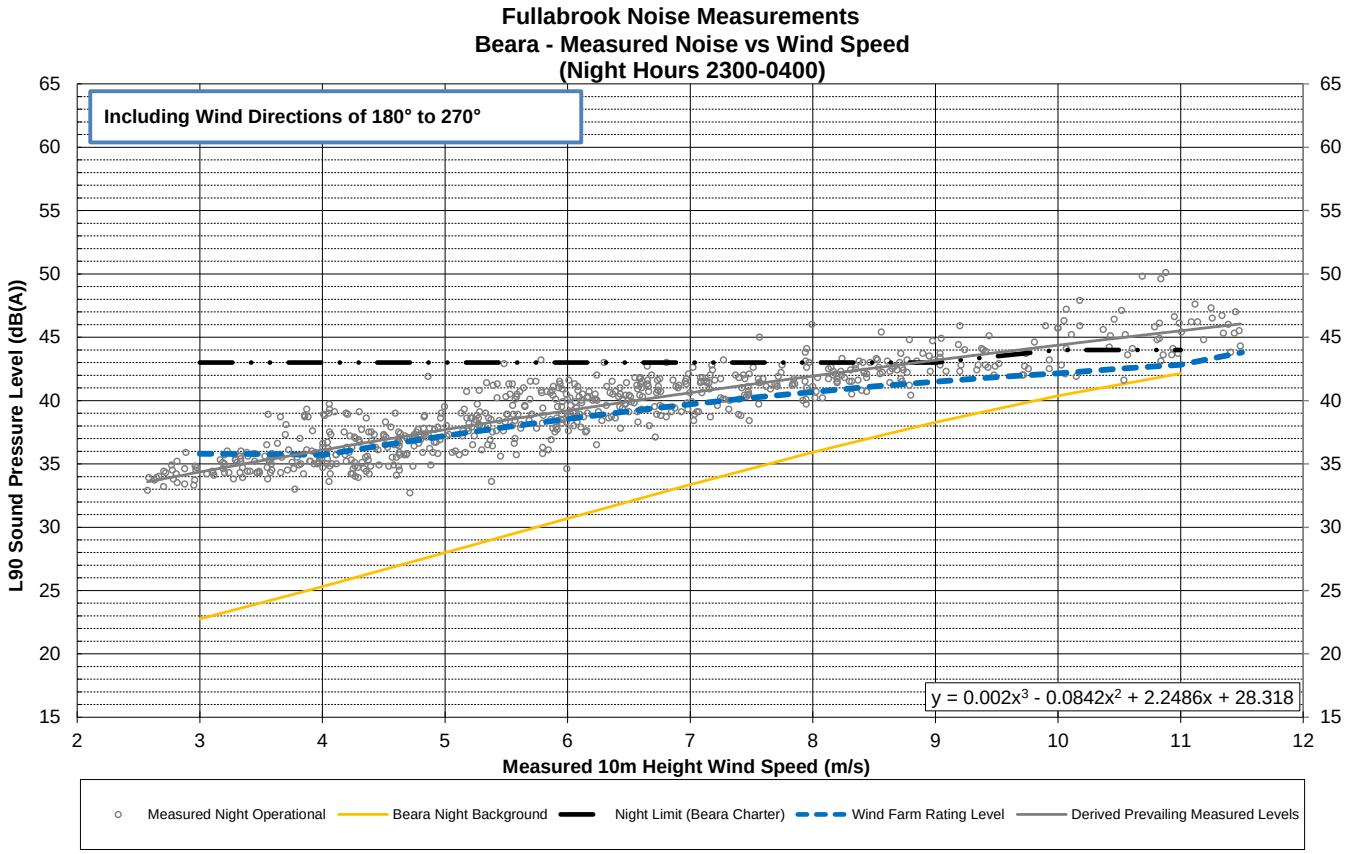

Fullabrook Noise Measurements
Halsinger - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0213x³ + 0.3536x² - 1.5323x + 36.05
Measured Evening Operational
Halsinger Evening Background
Daytime Limit (Halsinger)
Wind Farm Rating Level
Derived Prevailing Measured Levels

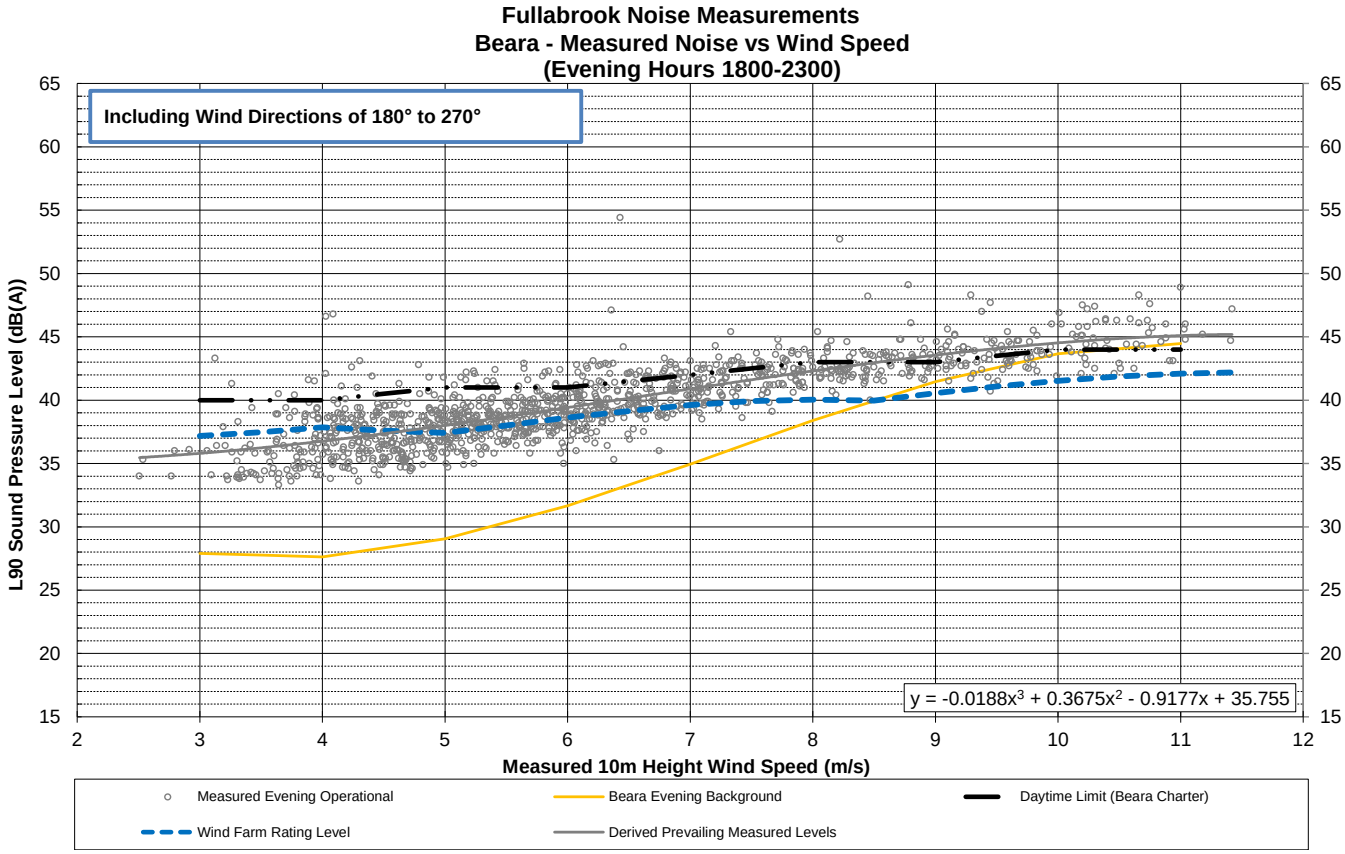

Fullabrook Noise Measurements
Beara - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0228x³ - 0.3871x² + 3.1151x + 27.619
Measured Night Operational
Beara Night Background
Night Limit (Beara Charter)
Wind Farm Rating Level
Derived Prevailing Measured Levels

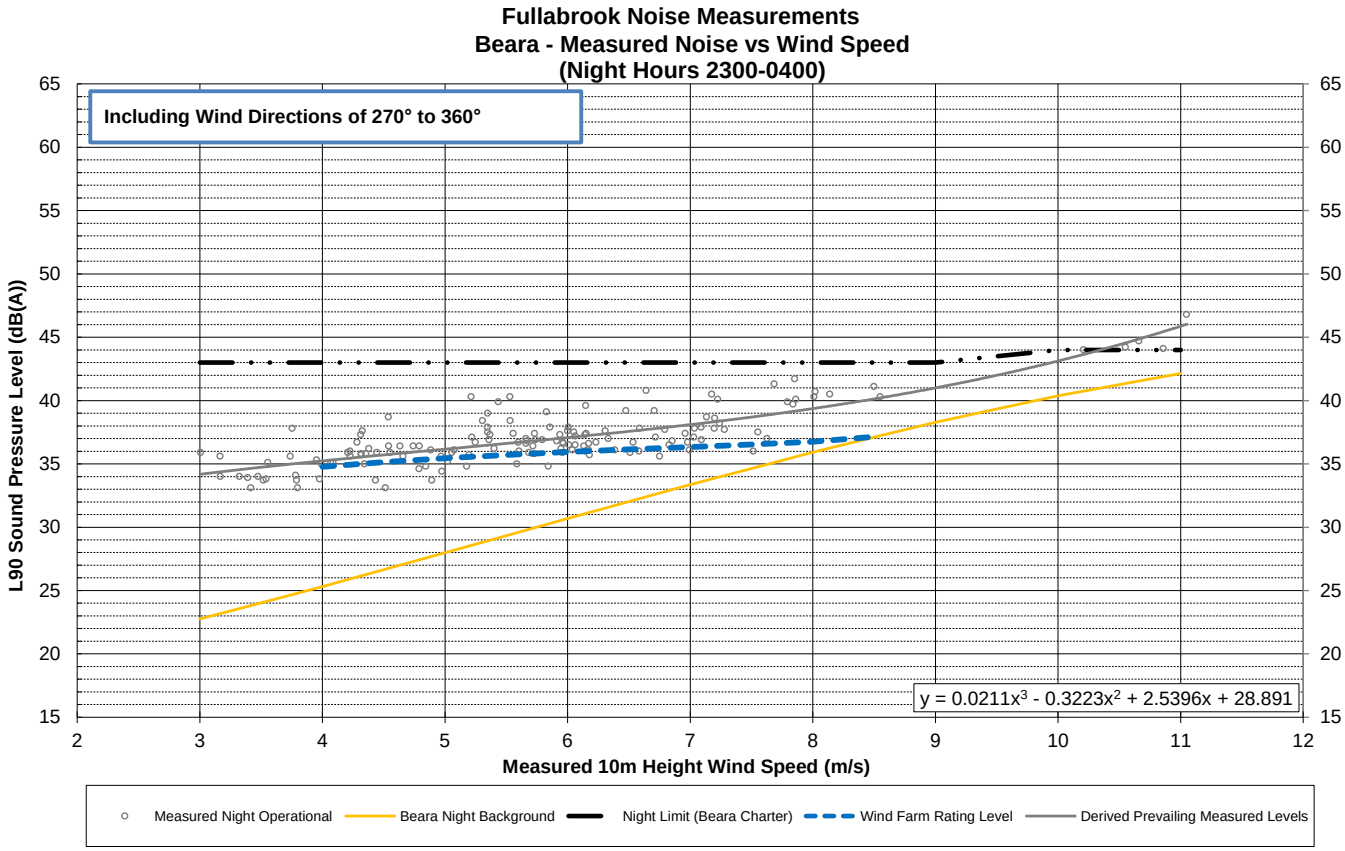

Fullabrook Noise Measurements
Beara - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0816x³ + 1.1801x² - 4.4332x + 39.923
Measured Evening Operational
Beara Evening Background
Daytime Limit (Beara Charter)
Wind Farm Rating Level
Derived Prevailing Measured Levels

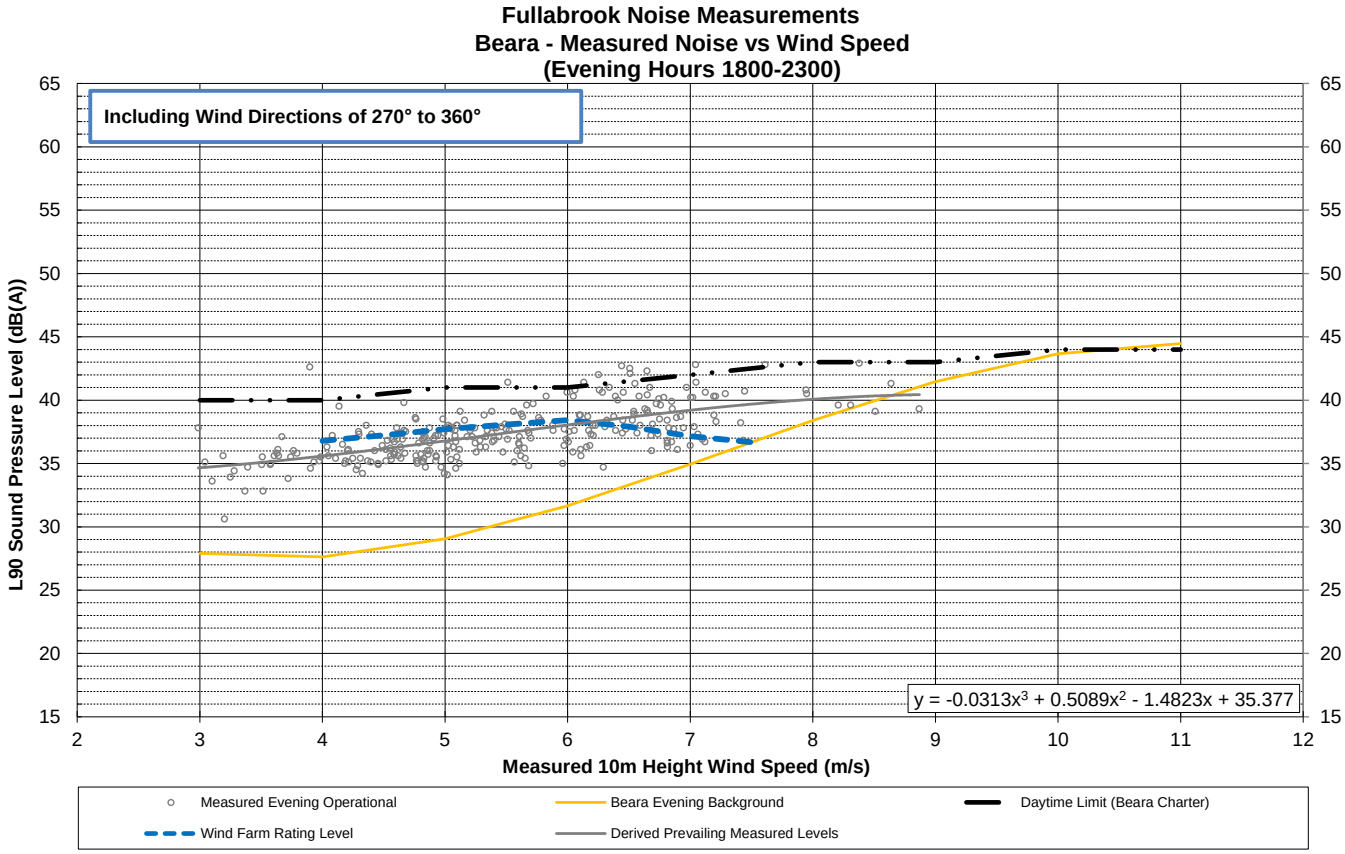

Fullabrook Noise Measurements
Beara - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0109x3 - 0.0389x2 - 0.13x + 36.775
Measured Night Operational
Beara Night Background
Night Limit (Beara Charter)
Wind Farm Rating Level
Derived Prevailing Measured Levels

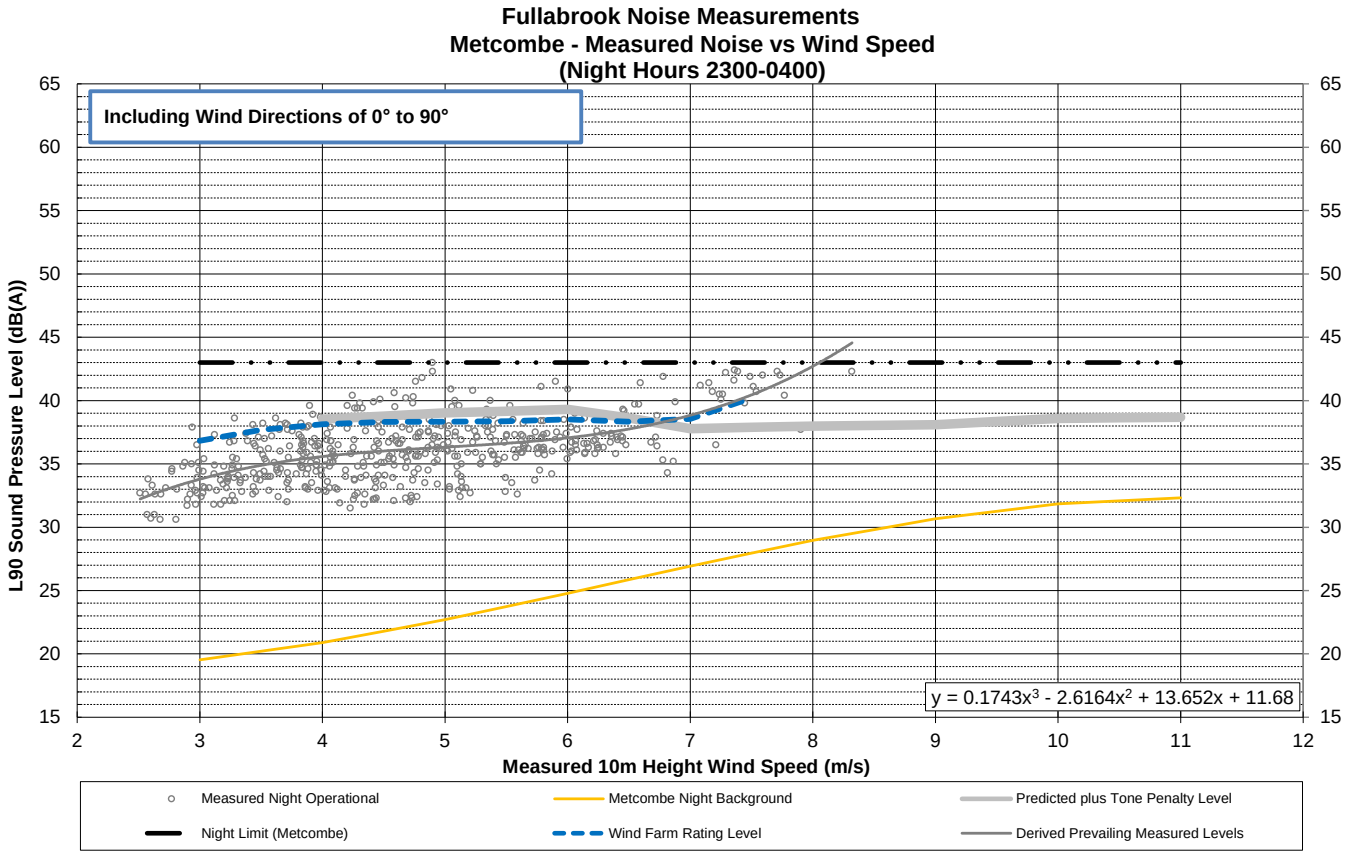

Fullabrook Noise Measurements
Beara - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.016x3 - 0.242x2 + 1.488x + 33.695
Measured Evening Operational
Beara Evening Background
Daytime Limit (Beara Charter)
Wind Farm Rating Level
Derived Prevailing Measured Levels

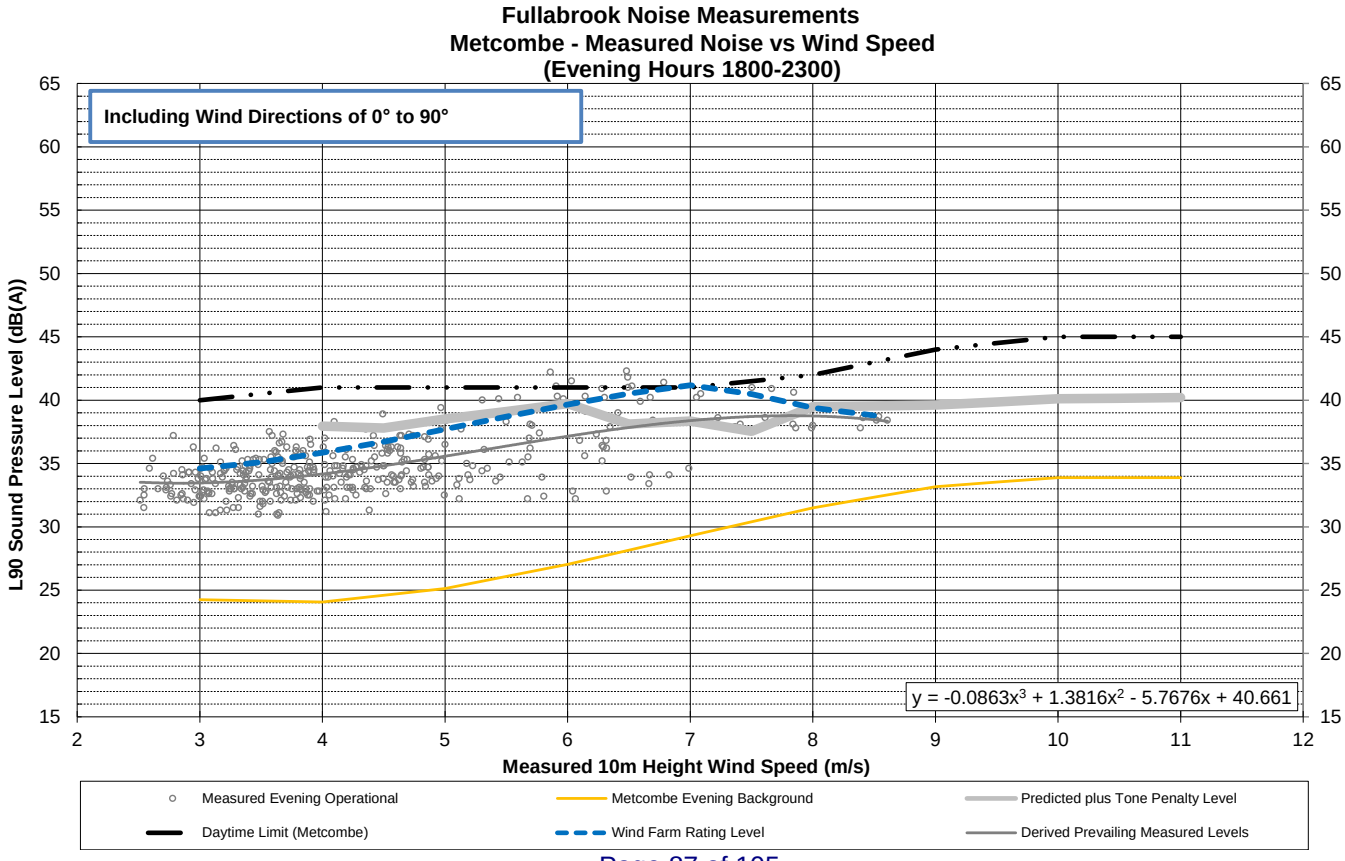

Fullabrook Noise Measurements
Beara - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.002x³ - 0.0842x² + 2.2486x + 28.318
Measured Night Operational
Beara Night Background
Night Limit (Beara Charter)
Wind Farm Rating Level
Derived Prevailing Measured Levels

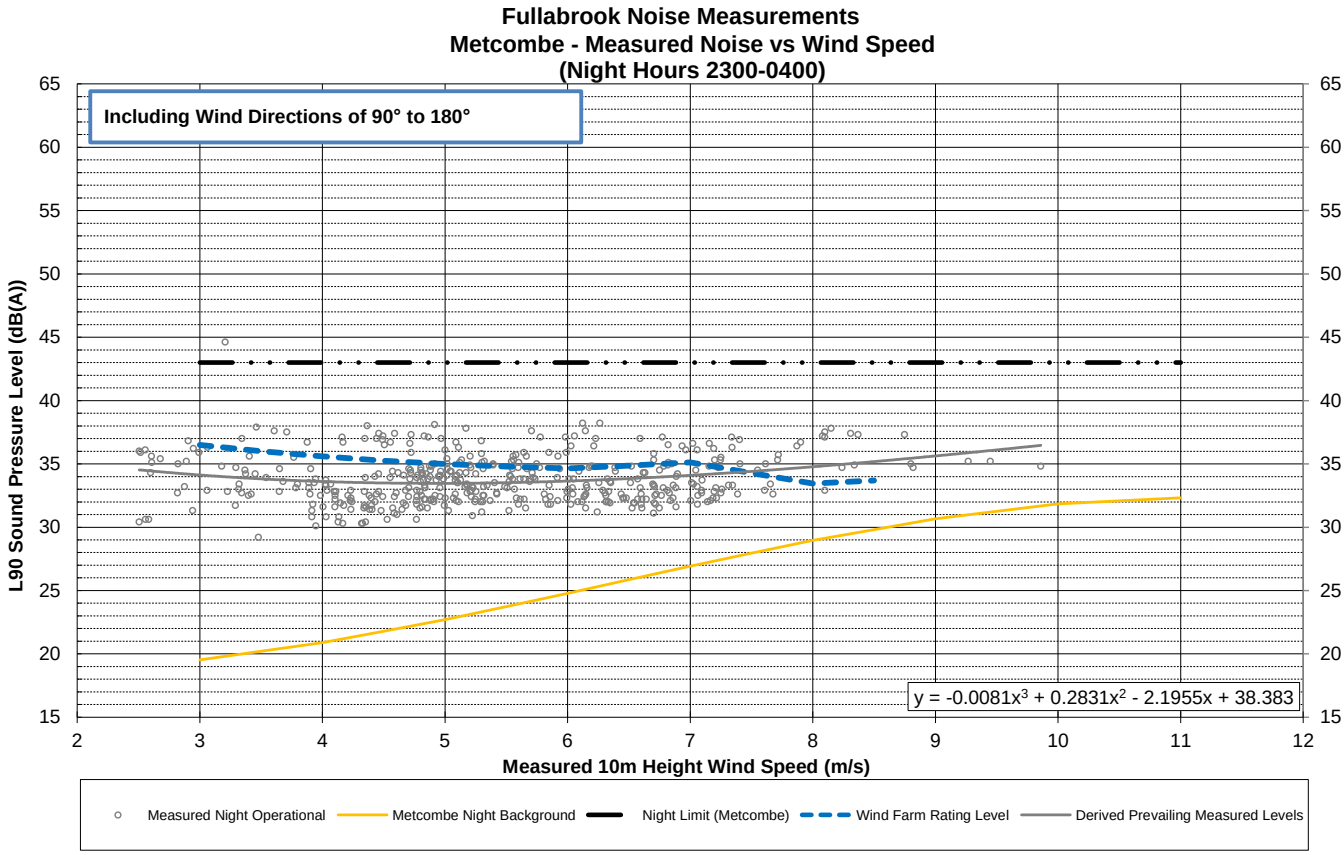

Fullabrook Noise Measurements
Beara - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0188x³ + 0.3675x² - 0.9177x + 35.755
Measured Evening Operational
Beara Evening Background
Daytime Limit (Beara Charter)
Wind Farm Rating Level
Derived Prevailing Measured Levels

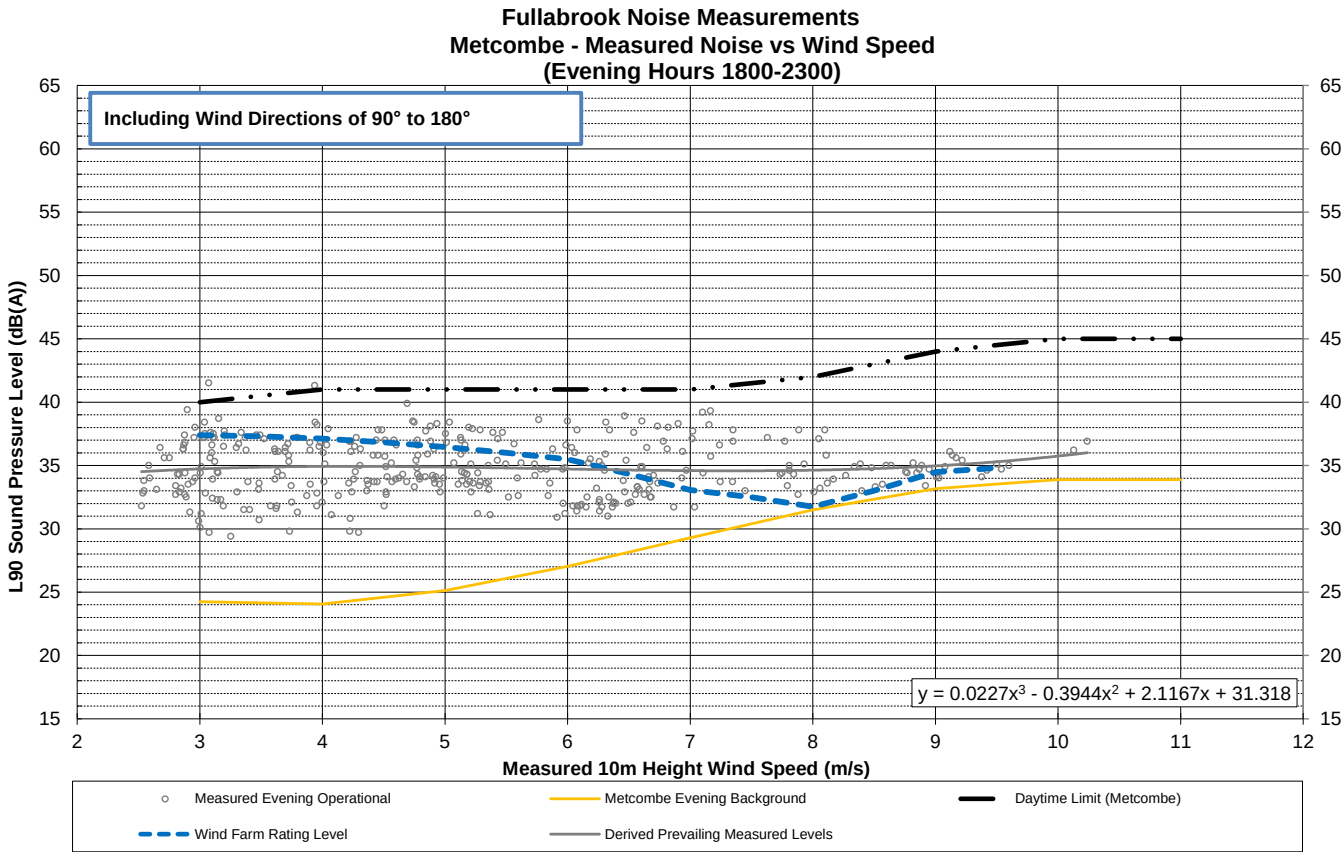

Fullabrook Noise Measurements
Beara - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0211x³ - 0.3223x² + 2.5396x + 28.891
Measured Night Operational
Beara Night Background
Night Limit (Beara Charter)
Wind Farm Rating Level
Derived Prevailing Measured Levels

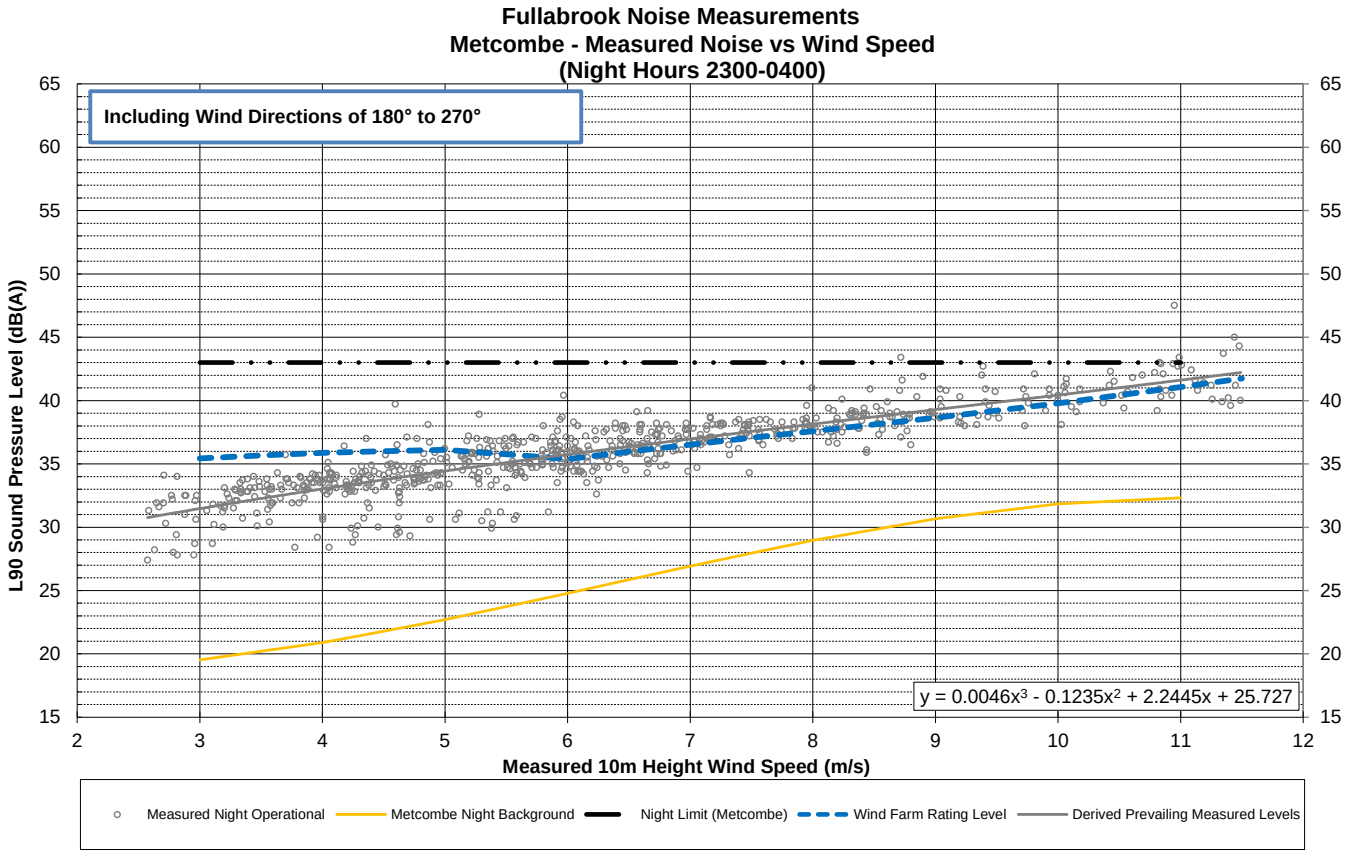

Fullabrook Noise Measurements
Beara - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0313x³ + 0.5089x² - 1.4823x + 35.377
Measured Evening Operational
Beara Evening Background
Daytime Limit (Beara Charter)
Wind Farm Rating Level
Derived Prevailing Measured Levels

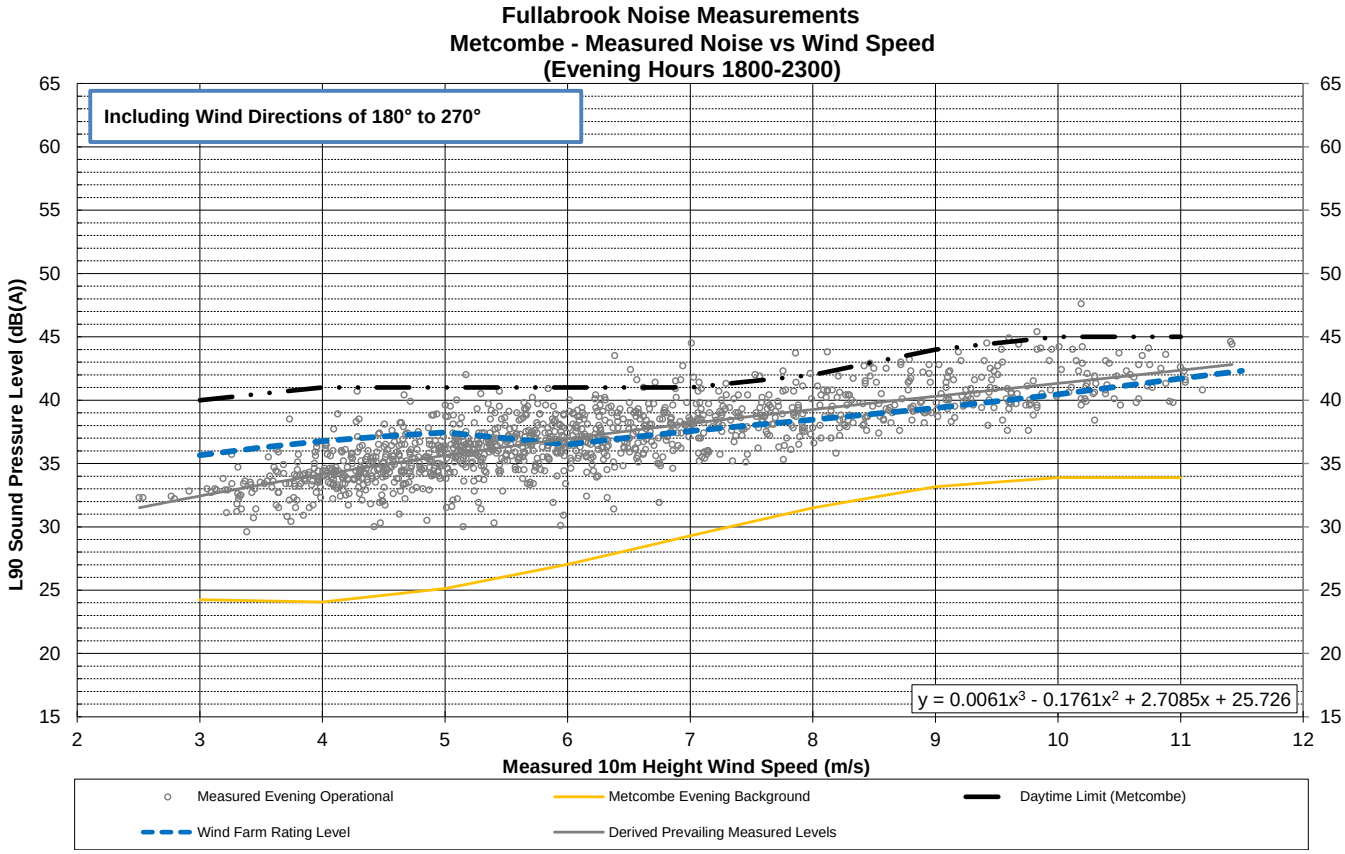

Fullabrook Noise Measurements
Metcombe - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.1743x³ - 2.6164x² + 13.652x + 11.68
Measured Night Operational
Metcombe Night Background
Predicted plus Tone Penalty Level
Night Limit (Metcombe)
Wind Farm Rating Level
Derived Prevailing Measured Levels

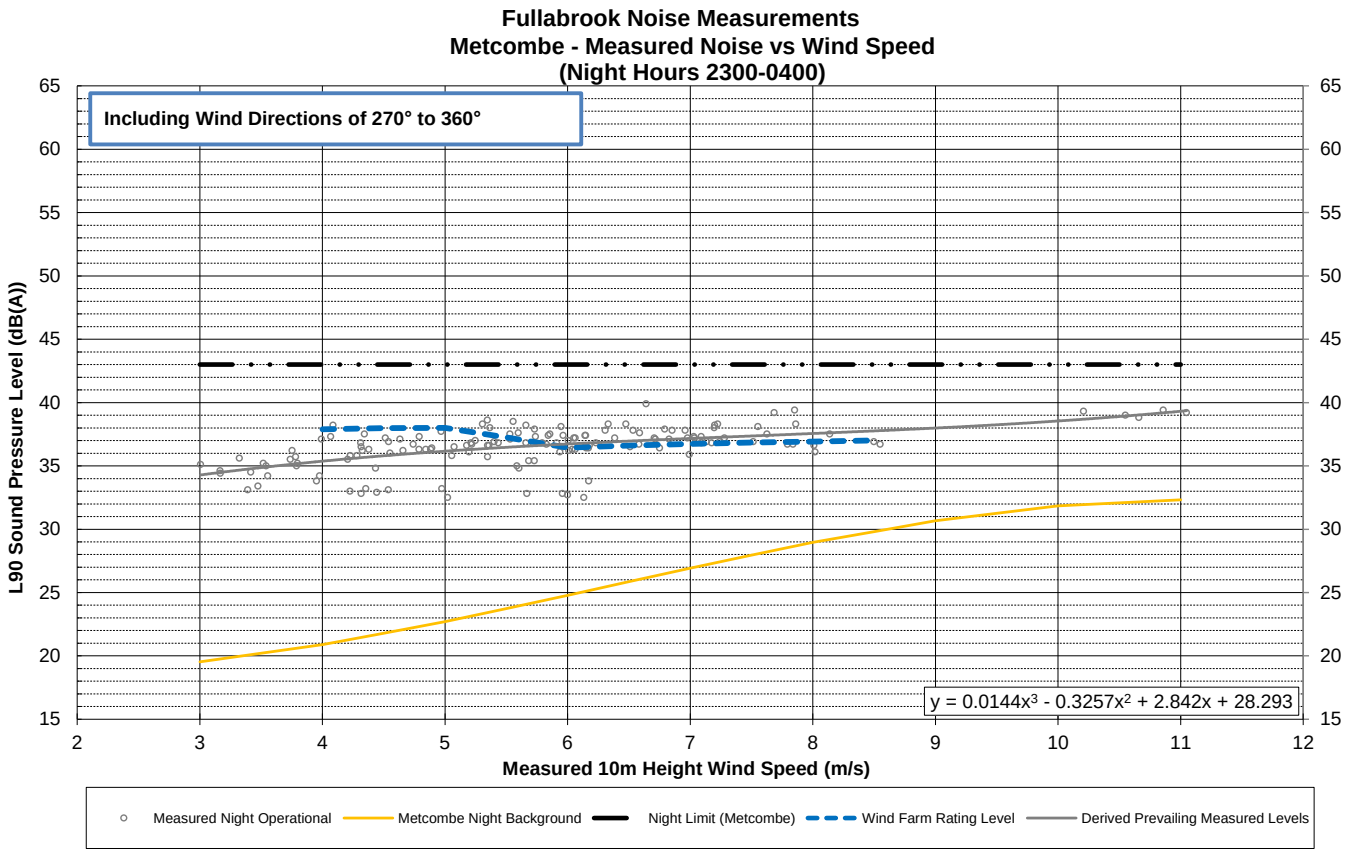

Fullabrook Noise Measurements
Metcombe - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0863x³ + 1.3816x² - 5.7676x + 40.661
Measured Evening Operational
Metcombe Evening Background
Predicted plus Tone Penalty Level
Daytime Limit (Metcombe)
Wind Farm Rating Level
Derived Prevailing Measured Levels

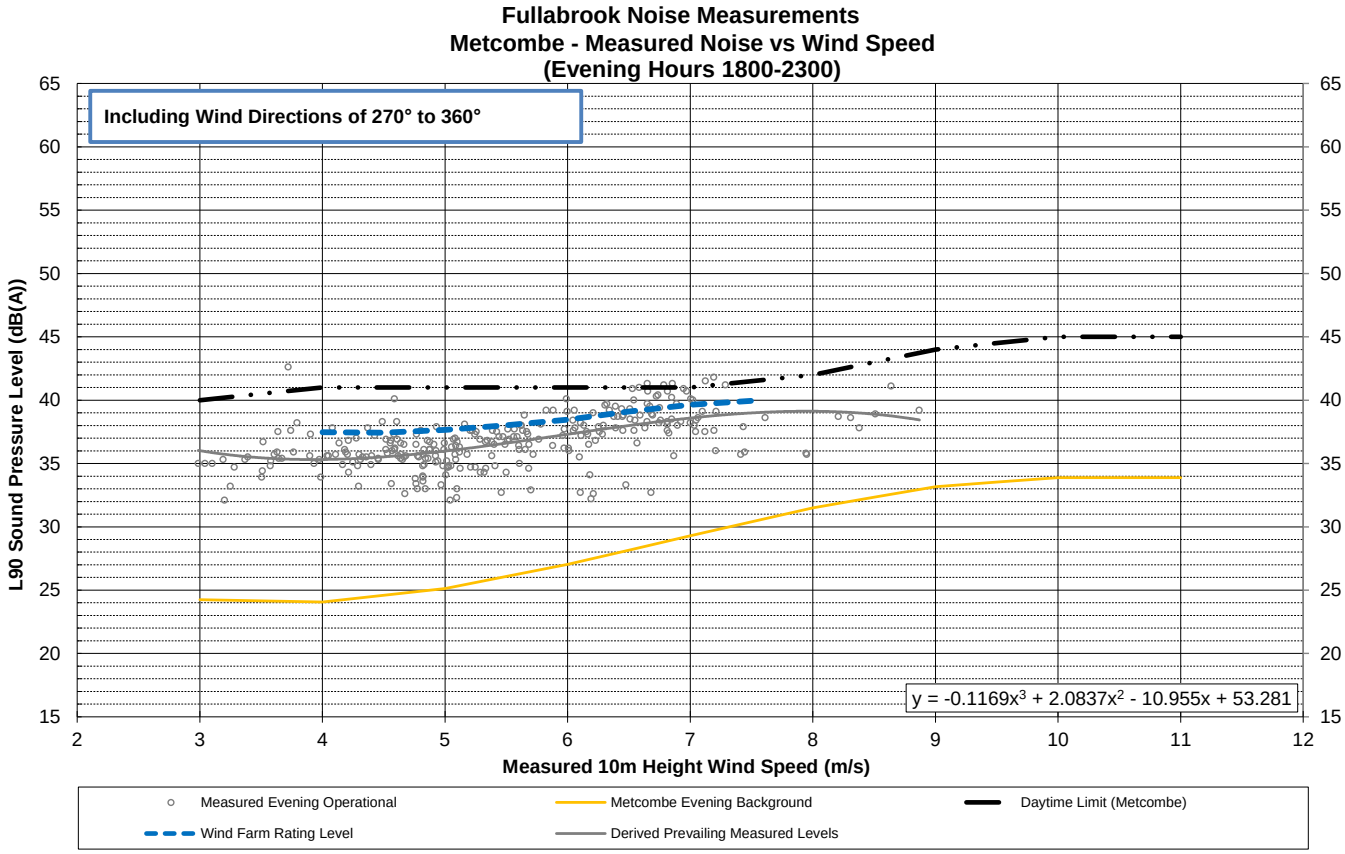

Fullabrook Noise Measurements
Metcombe - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0081x³ + 0.2831x² - 2.1955x + 38.383
Measured Night Operational
Metcombe Night Background
Night Limit (Metcombe)
Wind Farm Rating Level
Derived Prevailing Measured Levels

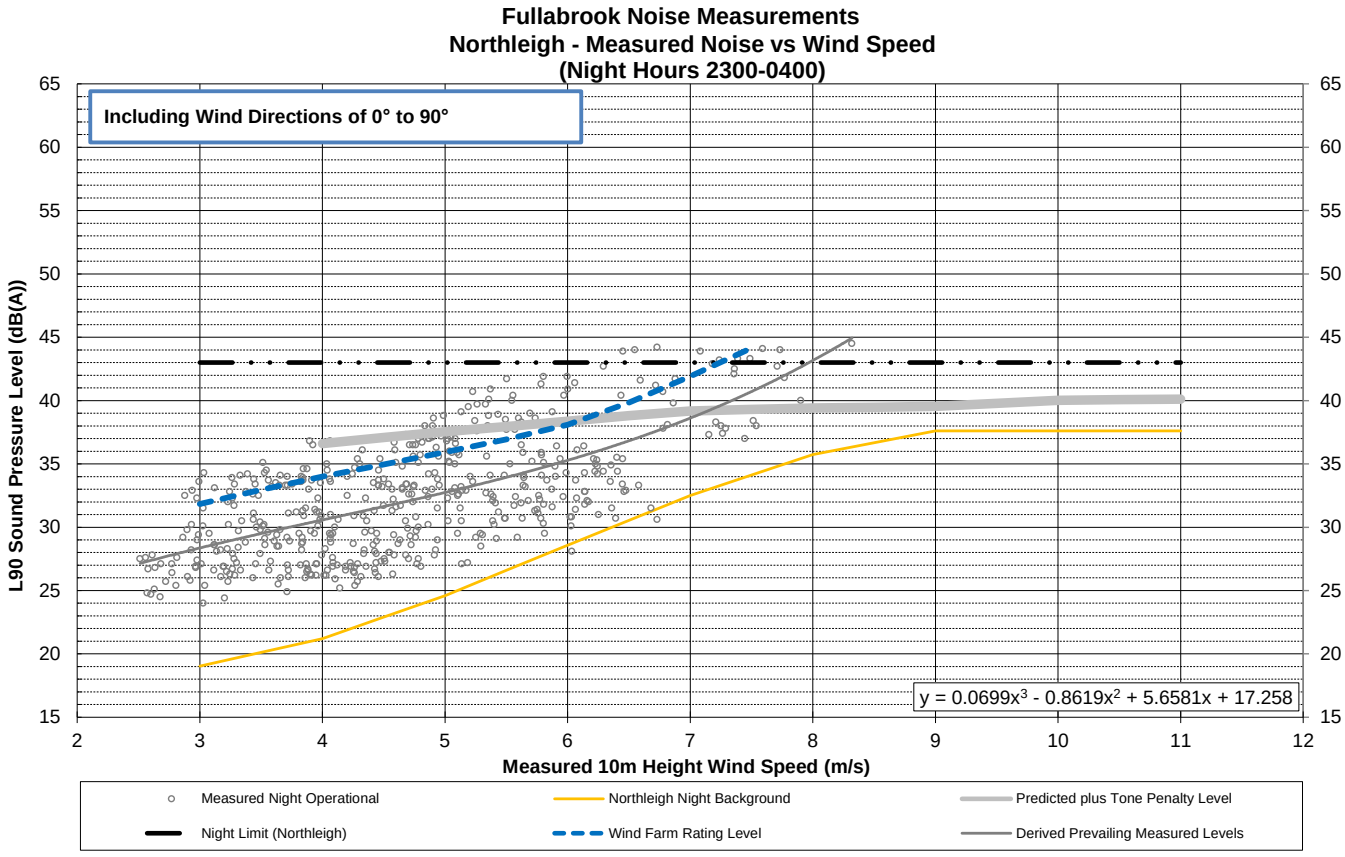

Fullabrook Noise Measurements
Metcombe - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0227x³ - 0.3944x² + 2.1167x + 31.318
Measured Evening Operational
Metcombe Evening Background
Daytime Limit (Metcombe)
Wind Farm Rating Level
Derived Prevailing Measured Levels

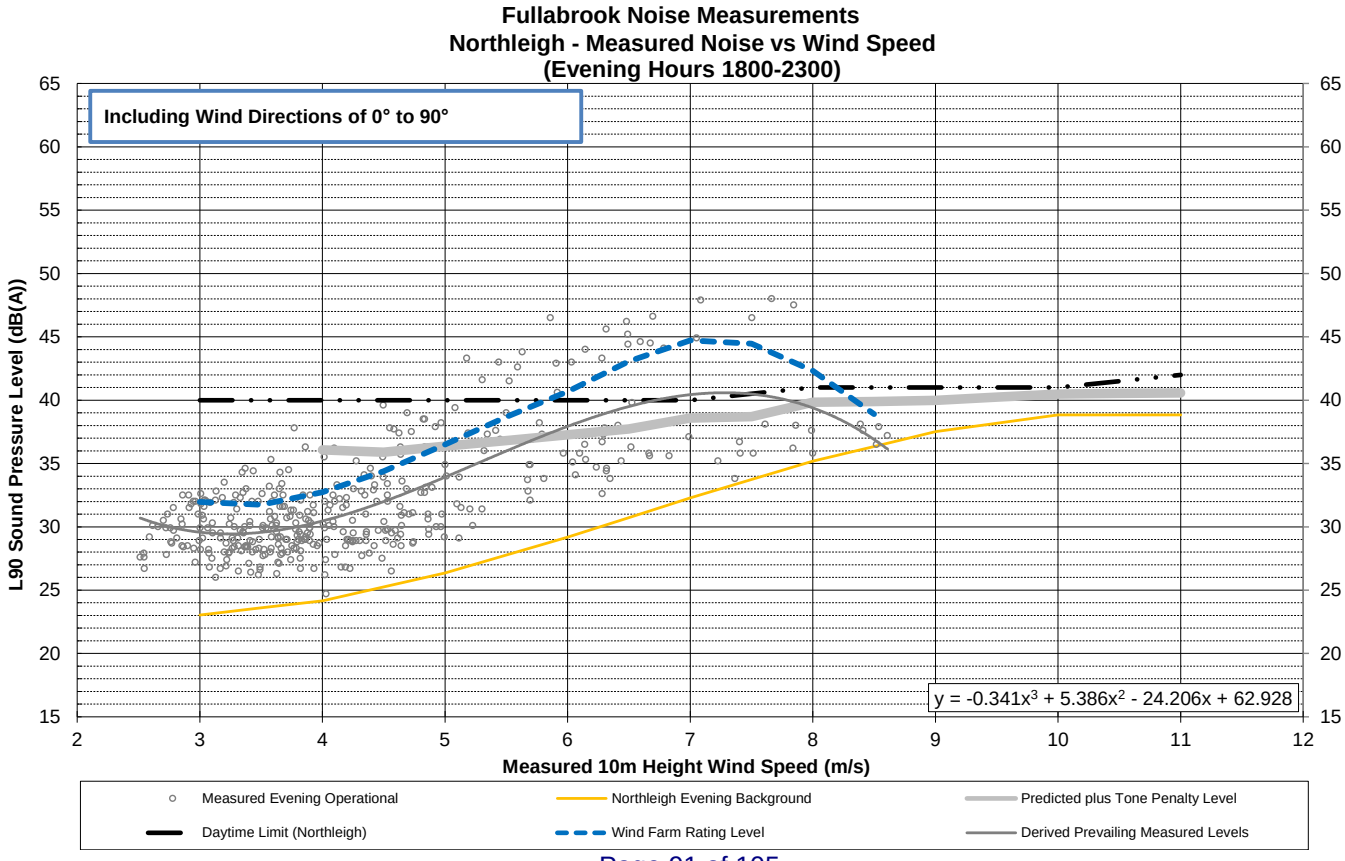

Fullabrook Noise Measurements
Metcombe - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0046x³ - 0.1235x² + 2.2445x + 25.727
Measured Night Operational
Metcombe Night Background
Night Limit (Metcombe)
Wind Farm Rating Level
Derived Prevailing Measured Levels

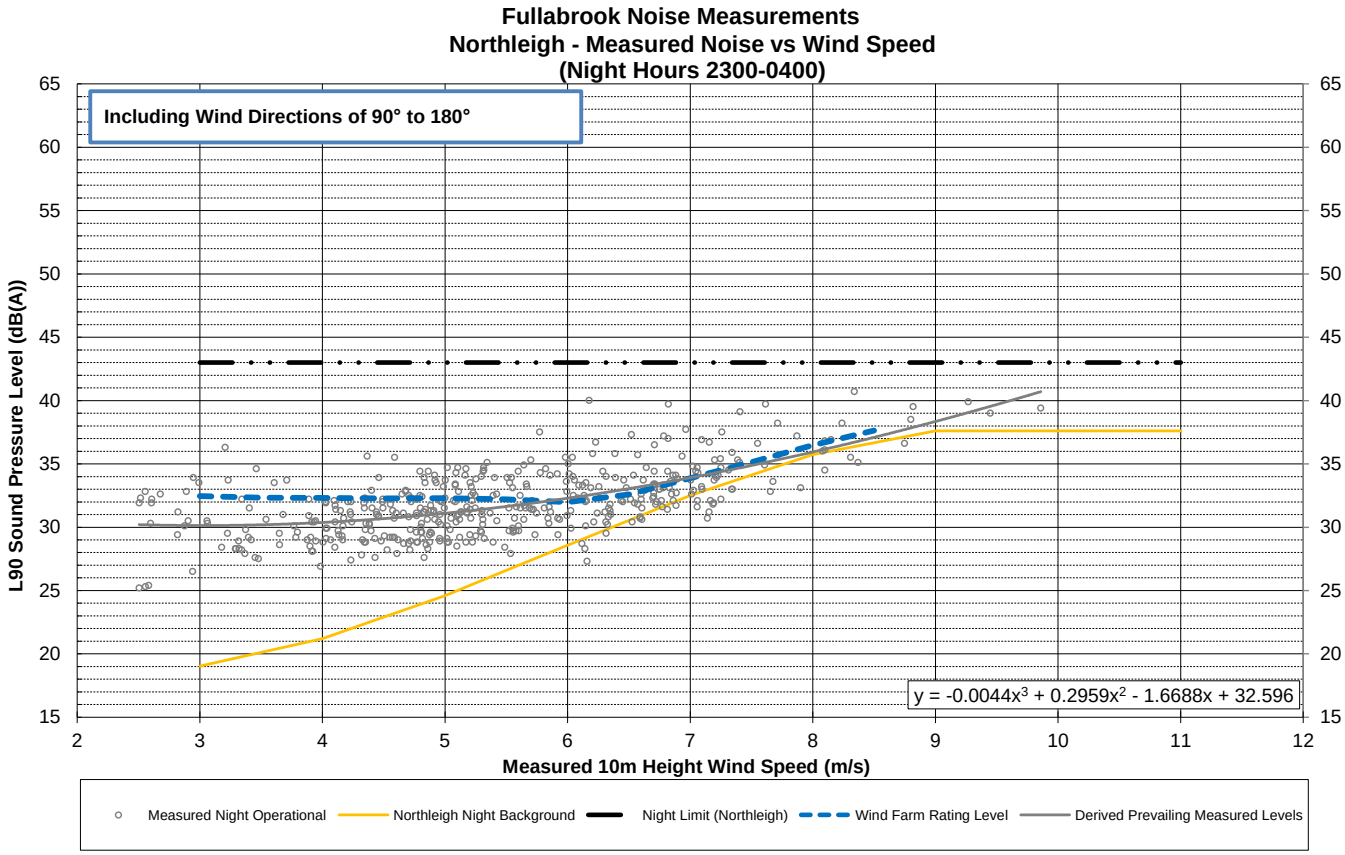

Fullabrook Noise Measurements
Metcombe - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0061x³ - 0.1761x² + 2.7085x + 25.726
Measured Evening Operational
Metcombe Evening Background
Daytime Limit (Metcombe)
Wind Farm Rating Level
Derived Prevailing Measured Levels

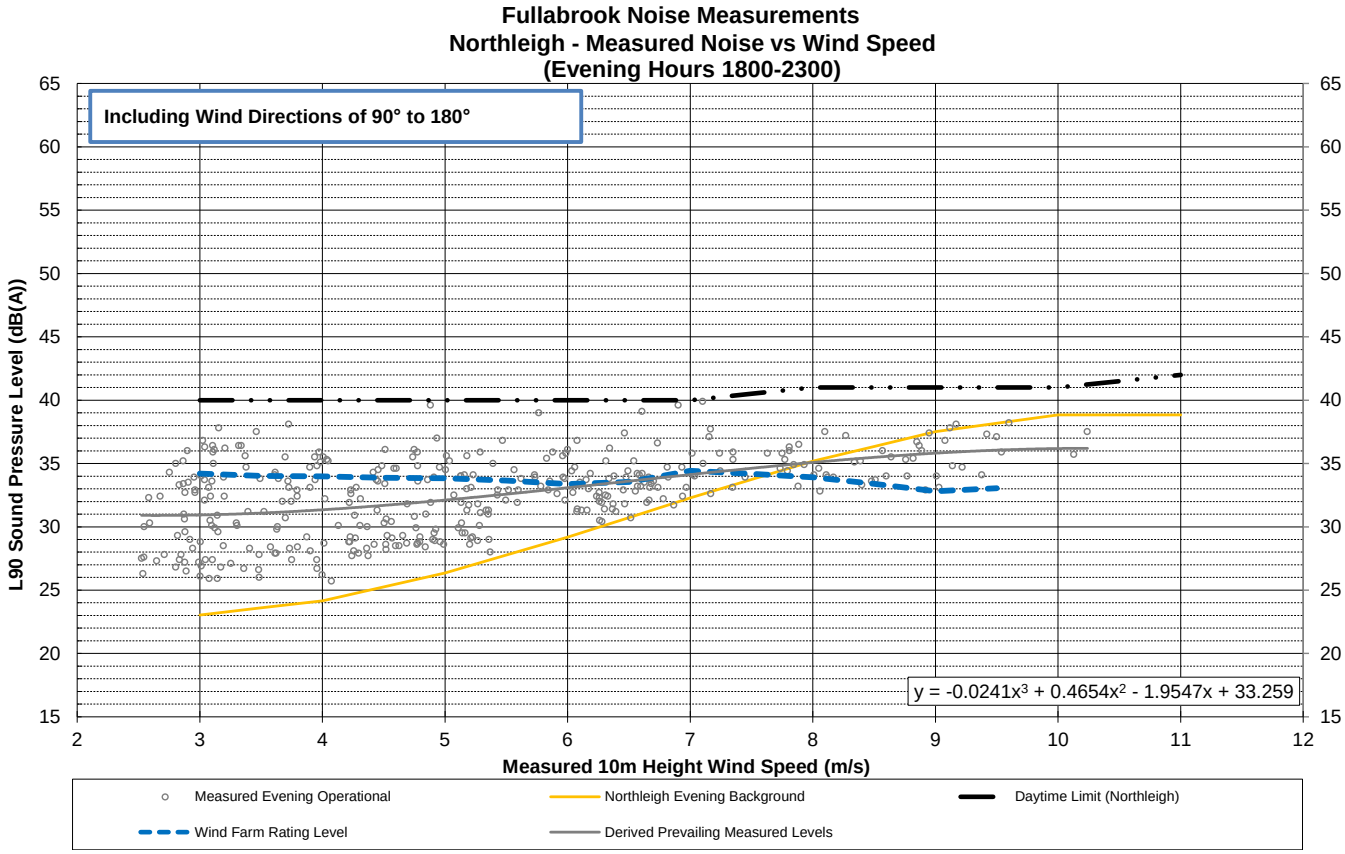

Fullabrook Noise Measurements
Metcombe - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0144x³ - 0.3257x² + 2.842x + 28.293
Measured Night Operational
Metcombe Night Background
Night Limit (Metcombe)
Wind Farm Rating Level
Derived Prevailing Measured Levels

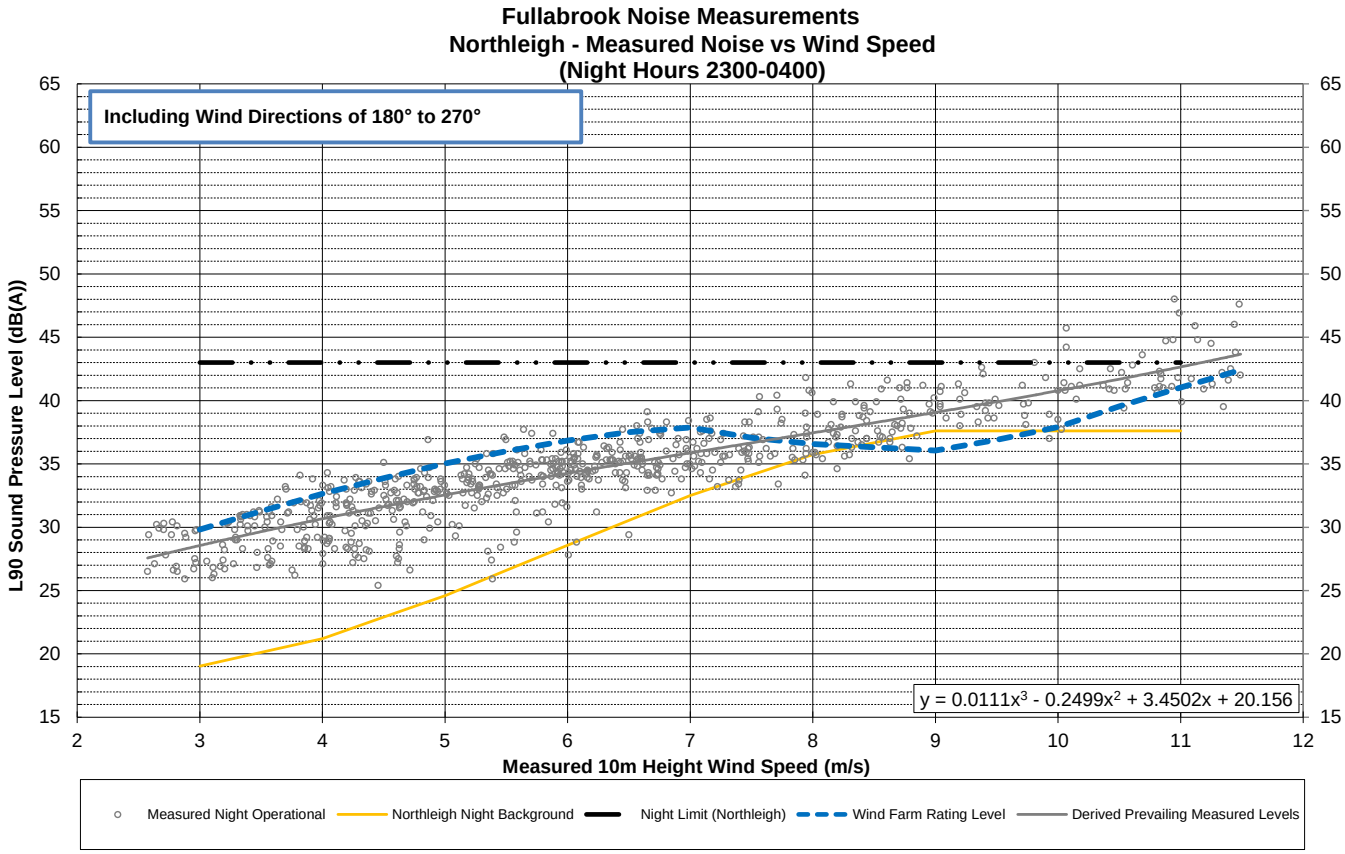

Fullabrook Noise Measurements
Metcombe - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.1169x³ + 2.0837x² - 10.955x + 53.281
Measured Evening Operational
Metcombe Evening Background
Daytime Limit (Metcombe)
Wind Farm Rating Level
Derived Prevailing Measured Levels

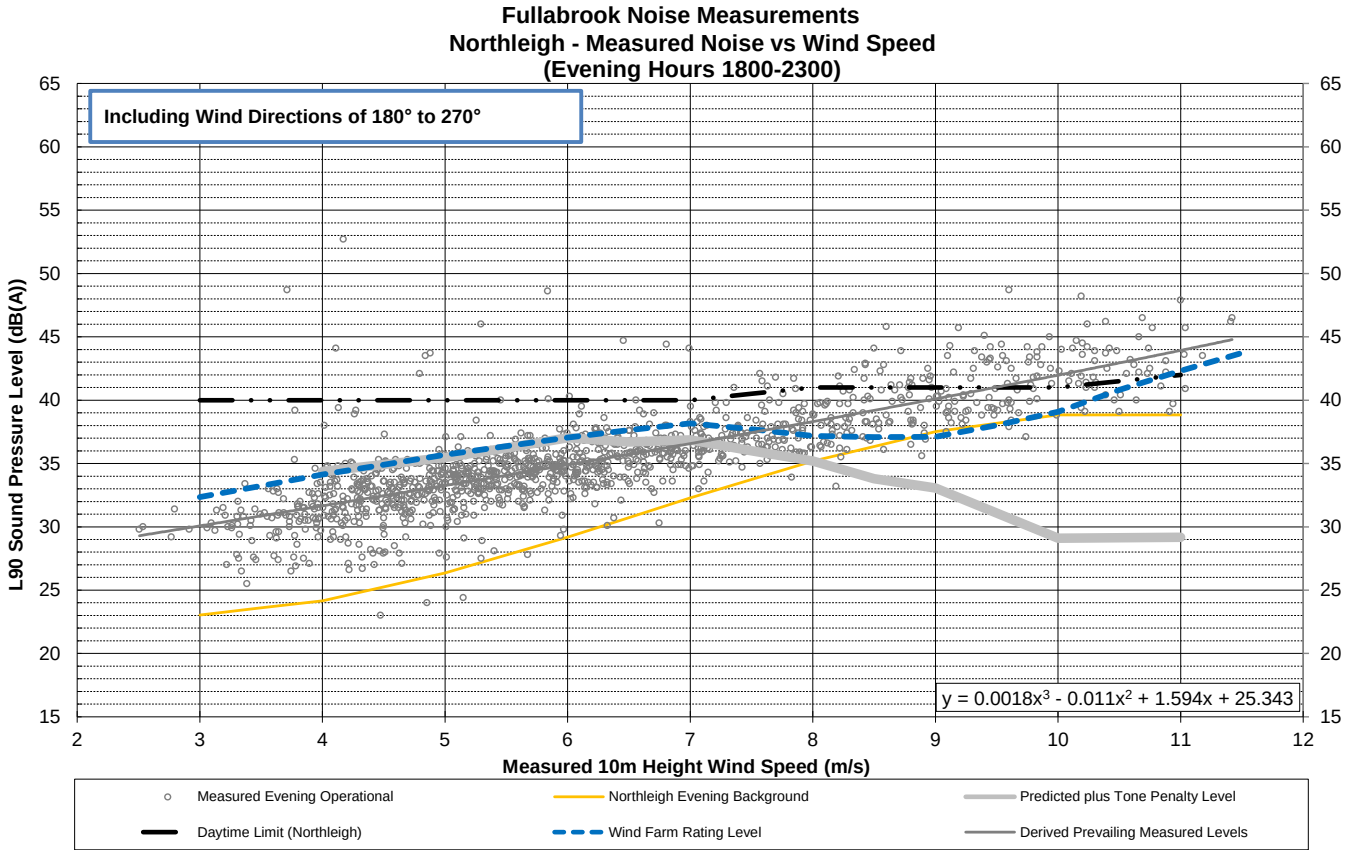

Fullabrook Noise Measurements
Northleigh - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0699x³ - 0.8619x² + 5.6581x + 17.258
Measured Night Operational
Northleigh Night Background
Predicted plus Tone Penalty Level
Night Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

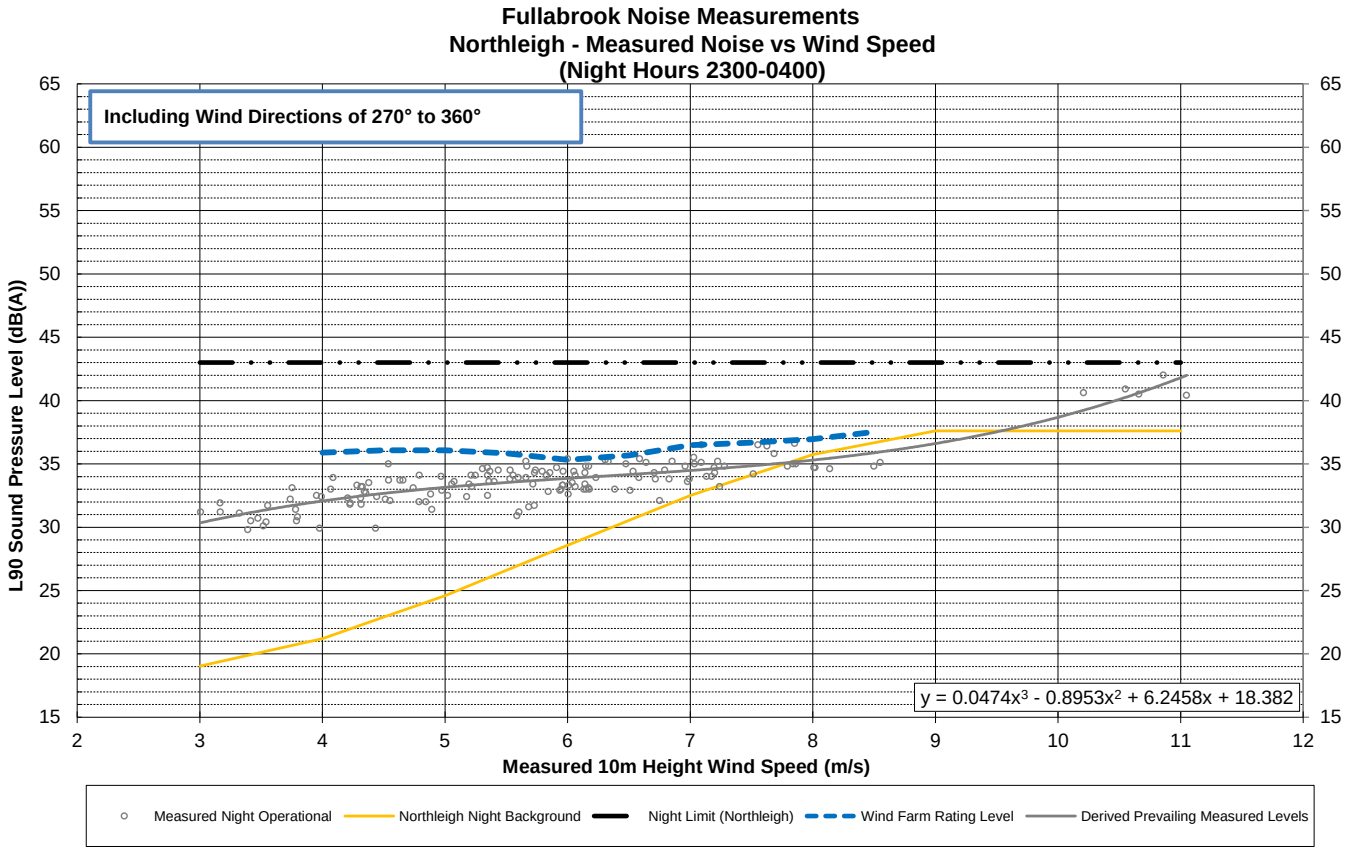

Fullabrook Noise Measurements
Northleigh - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.341x³ + 5.386x² - 24.206x + 62.928
Measured Evening Operational
Northleigh Evening Background
Predicted plus Tone Penalty Level
Daytime Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

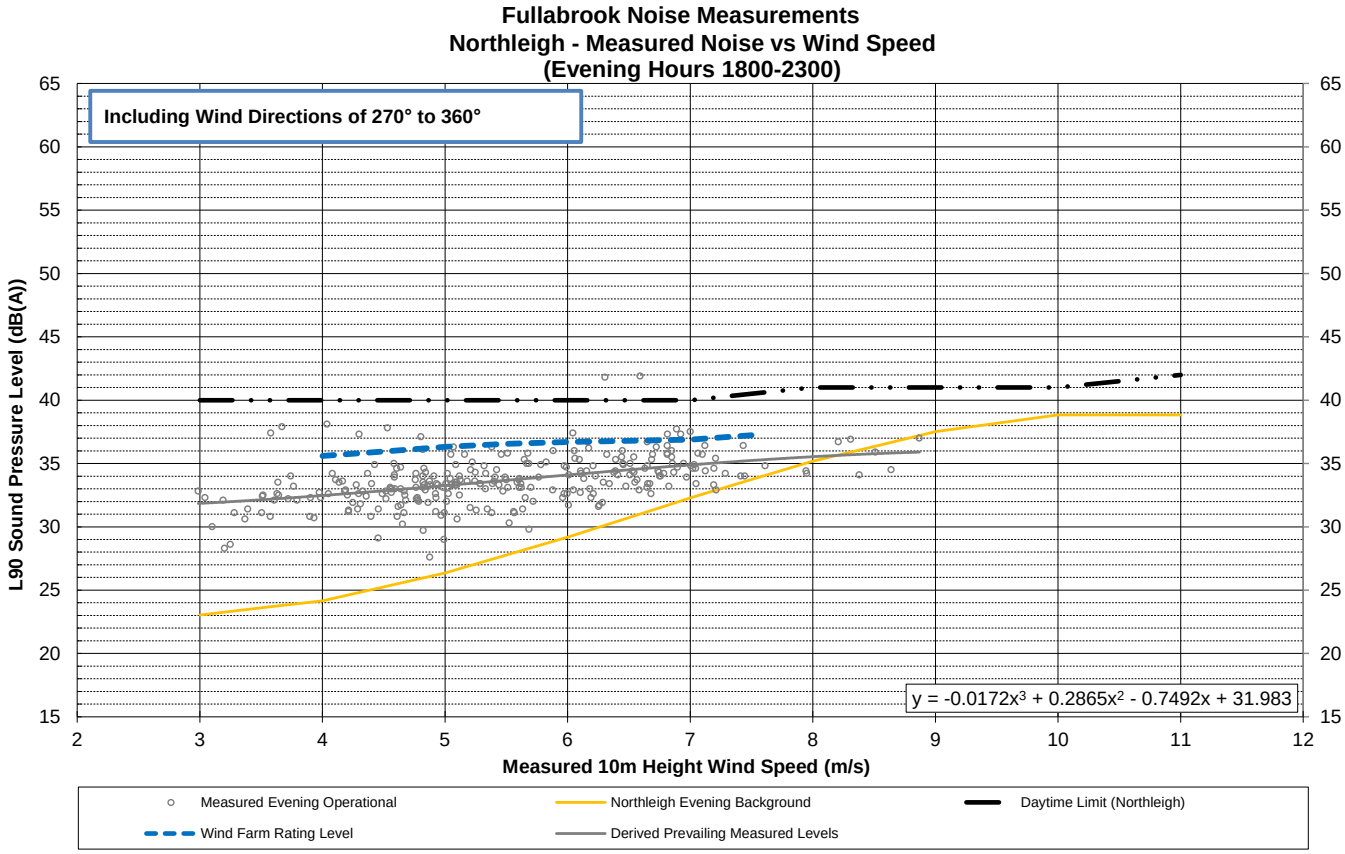

Fullabrook Noise Measurements
Northleigh - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0044x³ + 0.2959x² - 1.6688x + 32.596
Measured Night Operational
Northleigh Night Background
Night Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

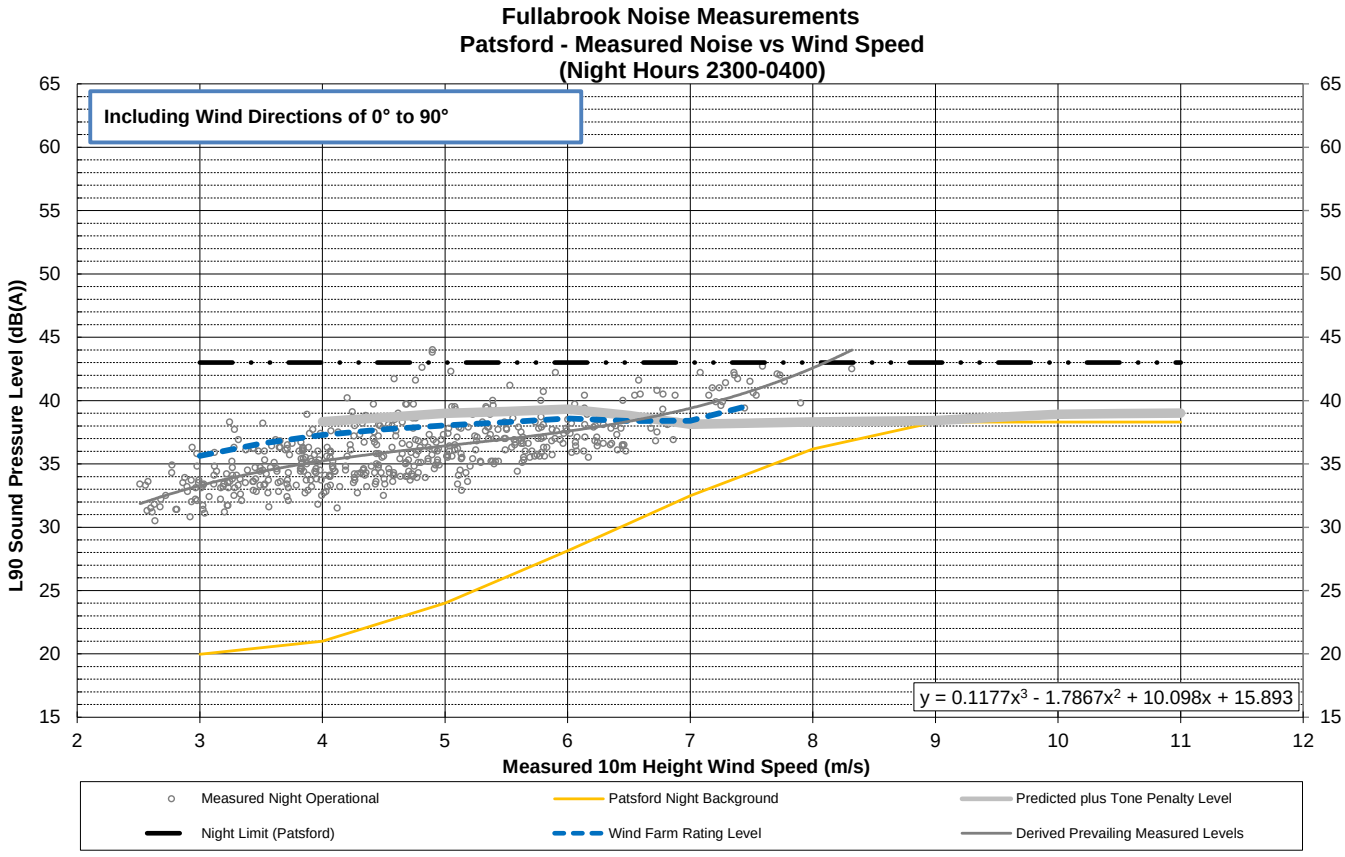

Fullabrook Noise Measurements
Northleigh - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0241x³ + 0.4654x² - 1.9547x + 33.259
Measured Evening Operational
Northleigh Evening Background
Daytime Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

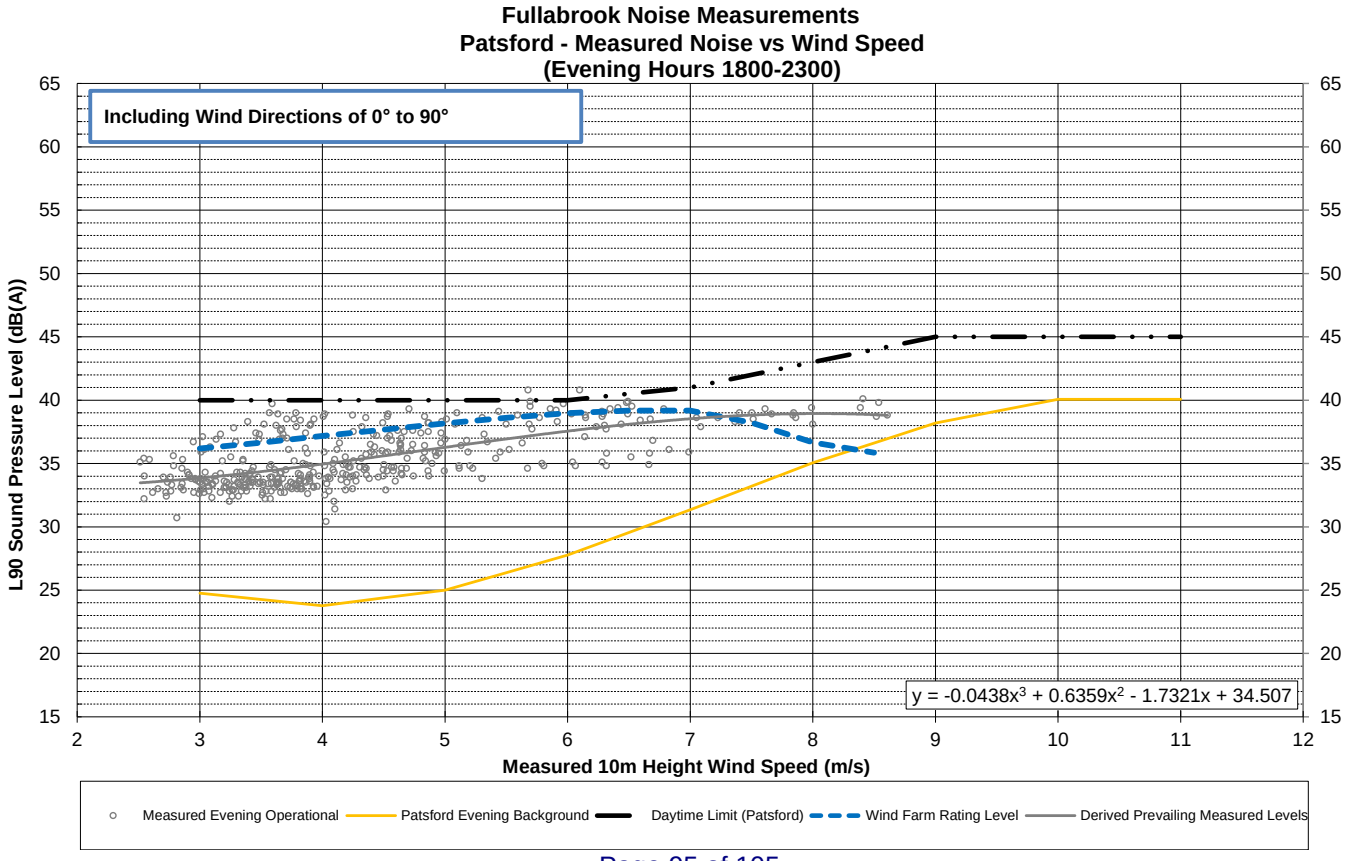

Fullabrook Noise Measurements
Northleigh - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0111x³ - 0.2499x² + 3.4502x + 20.156
Measured Night Operational
Northleigh Night Background
Night Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

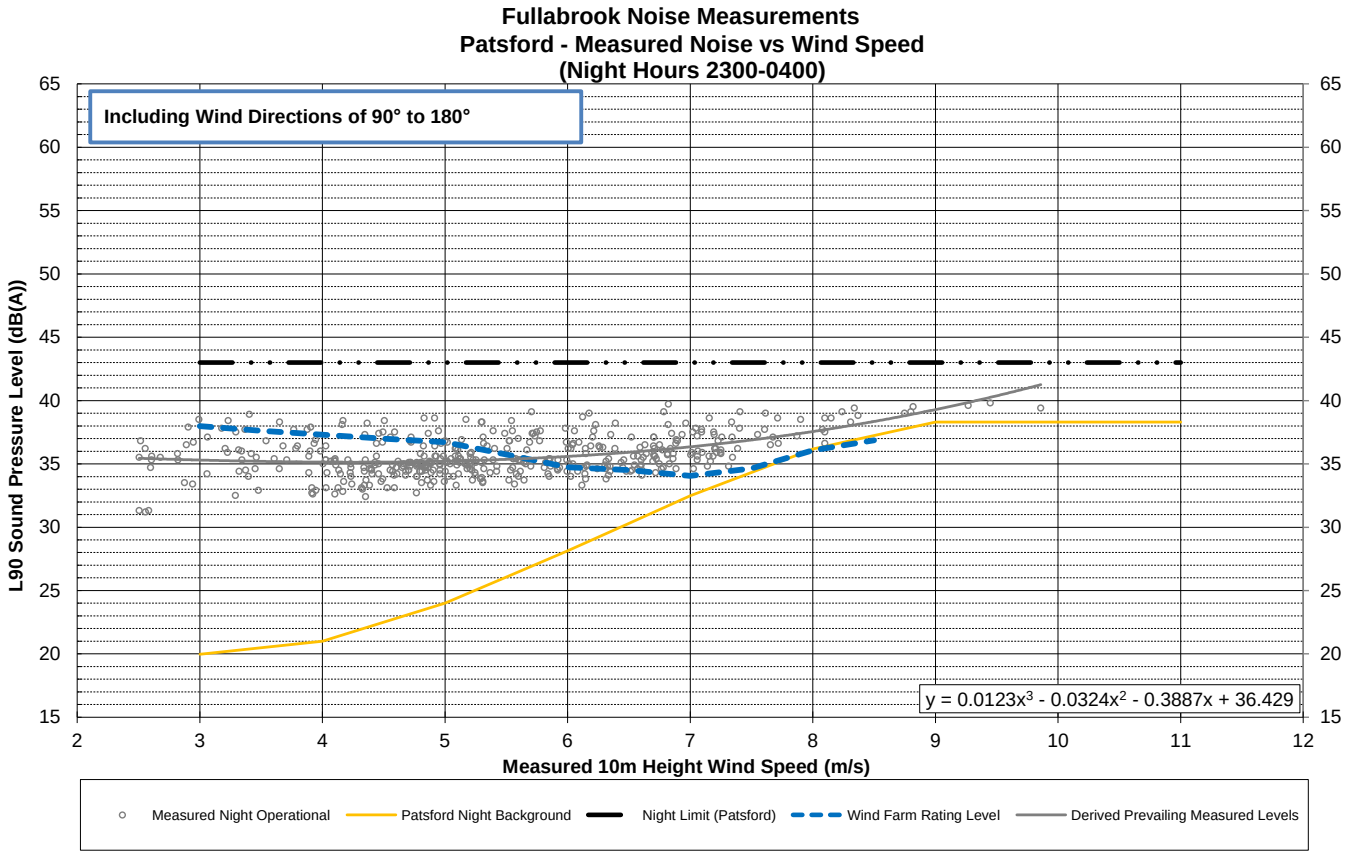

Fullabrook Noise Measurements
Northleigh - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0018x³ - 0.011x² + 1.594x + 25.343
Measured Evening Operational
Northleigh Evening Background
Predicted plus Tone Penalty Level
Daytime Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

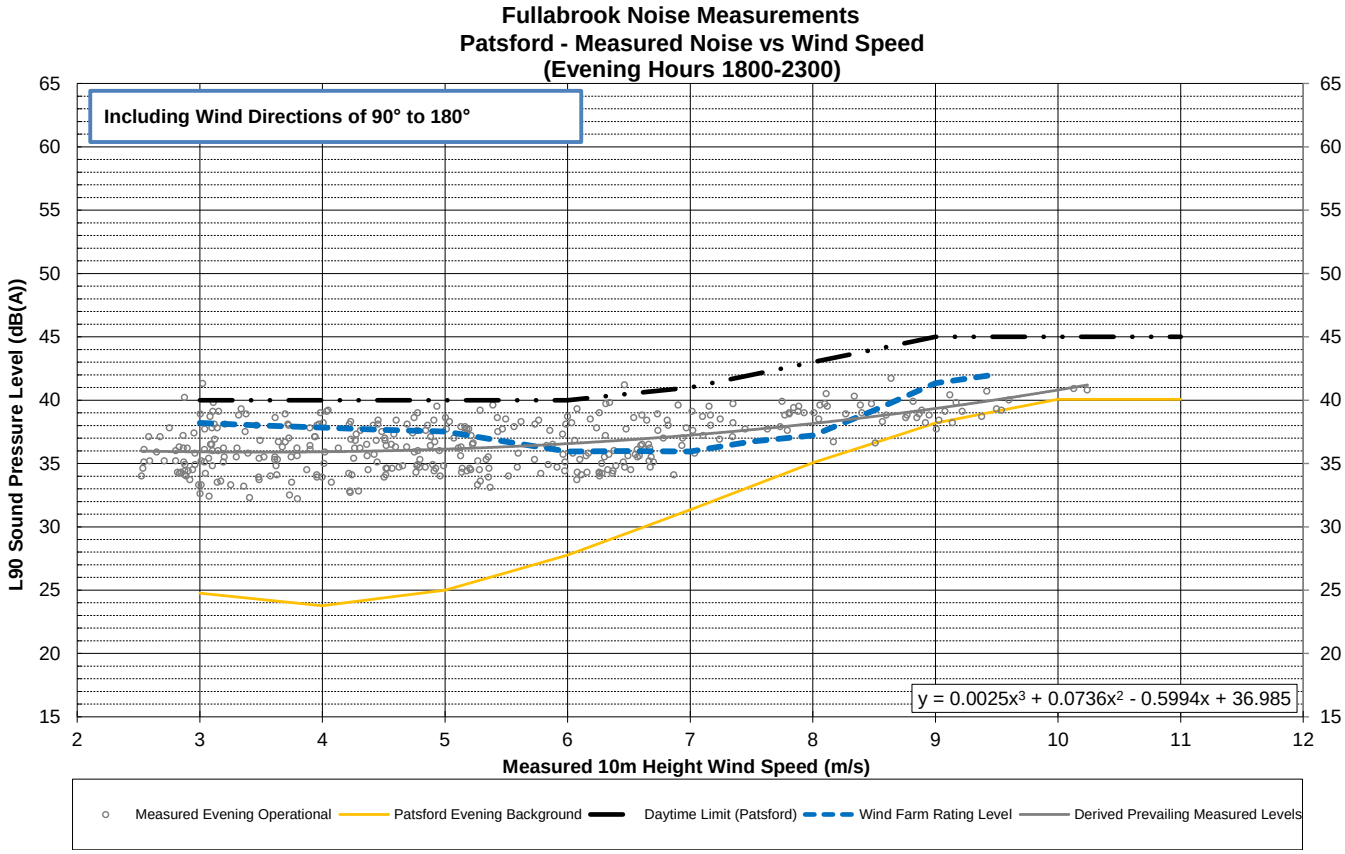

Fullabrook Noise Measurements
Northleigh - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0474x³ - 0.8953x² + 6.2458x + 18.382
Measured Night Operational
Northleigh Night Background
Night Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

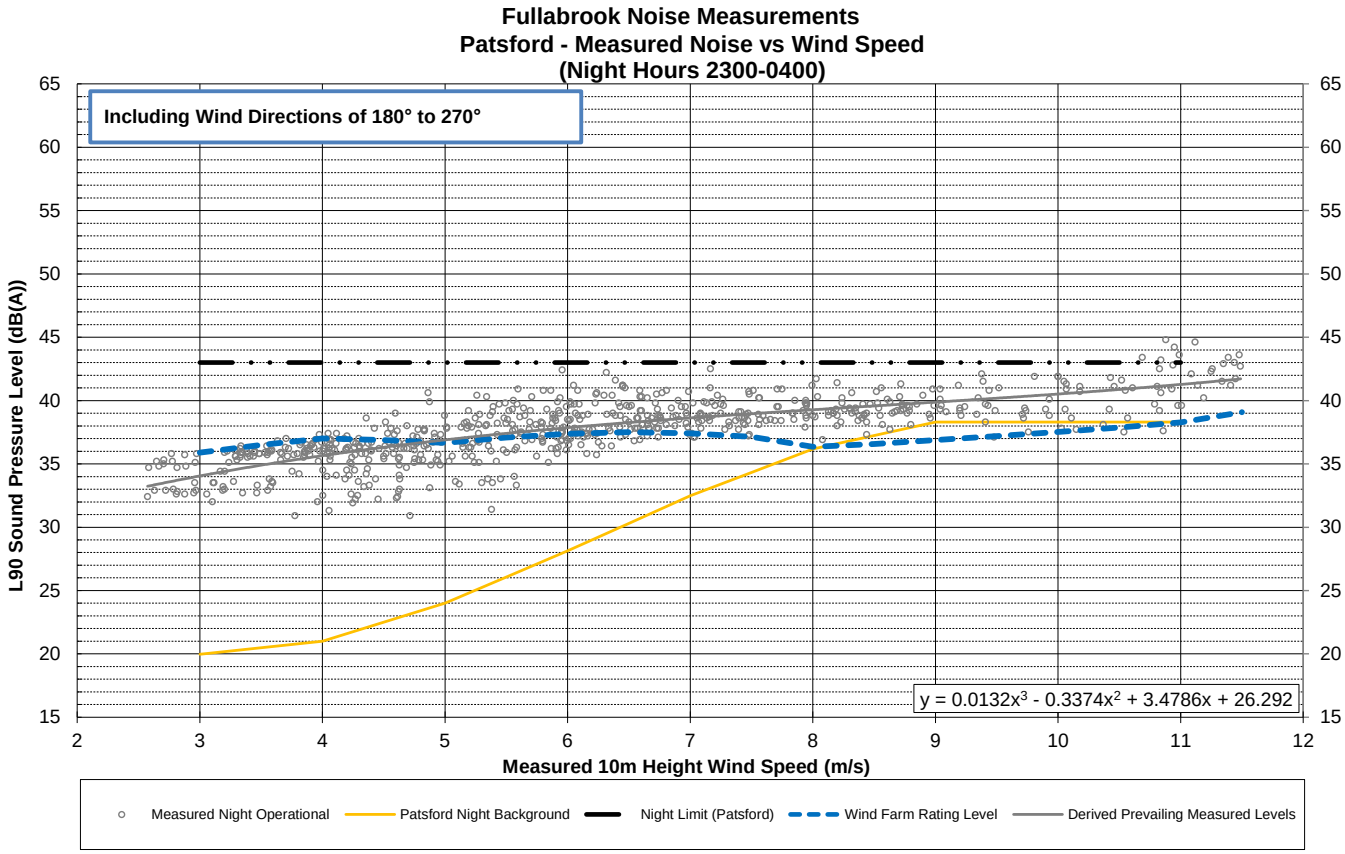

Fullabrook Noise Measurements
Northleigh - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0172x³ + 0.2865x² - 0.7492x + 31.983
Measured Evening Operational
Northleigh Evening Background
Daytime Limit (Northleigh)
Wind Farm Rating Level
Derived Prevailing Measured Levels

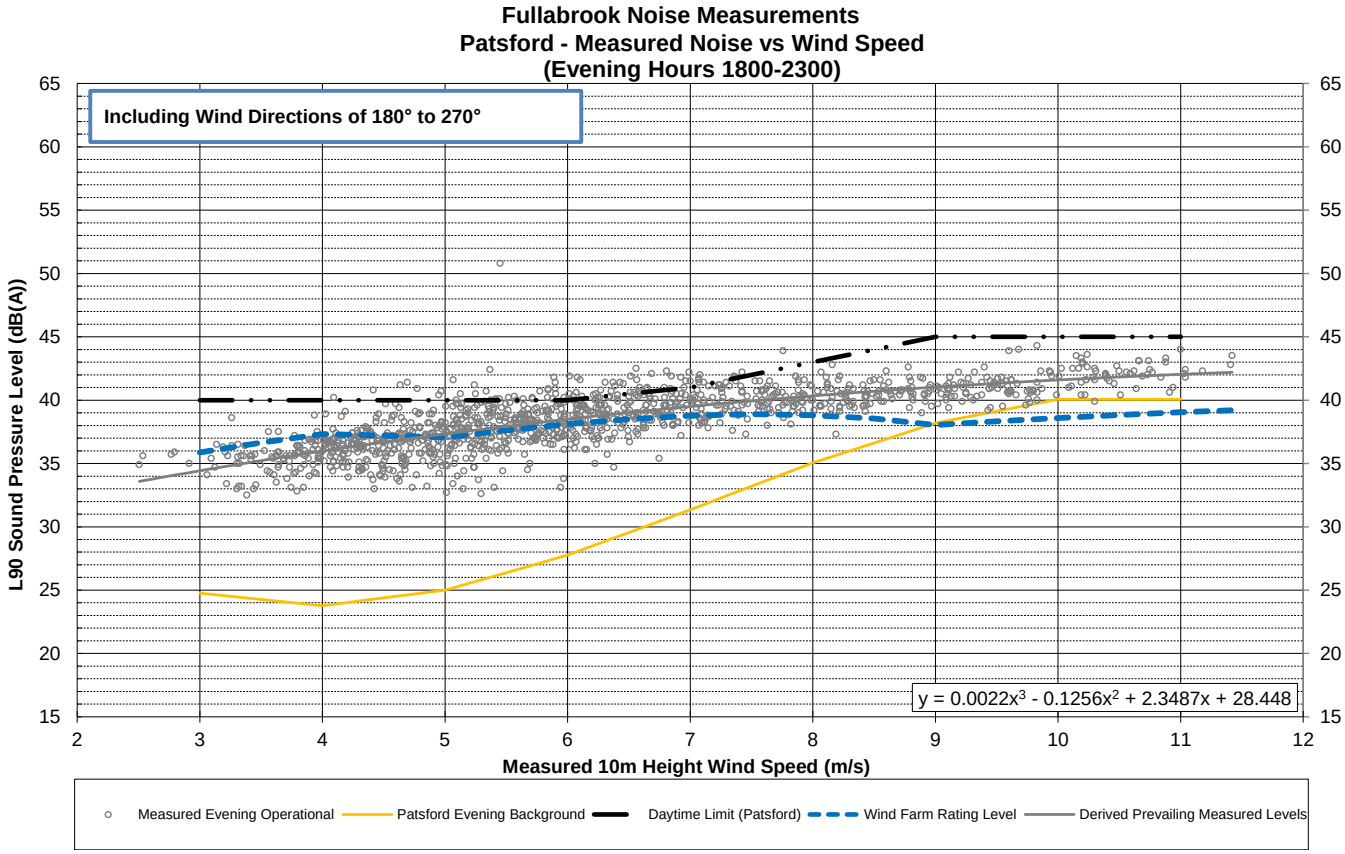

Fullabrook Noise Measurements
Patsford - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.1177x³ - 1.7867x² + 10.098x + 15.893
Measured Night Operational
Patsford Night Background
Predicted plus Tone Penalty Level
Night Limit (Patsford)
Wind Farm Rating Level
Derived Prevailing Measured Levels

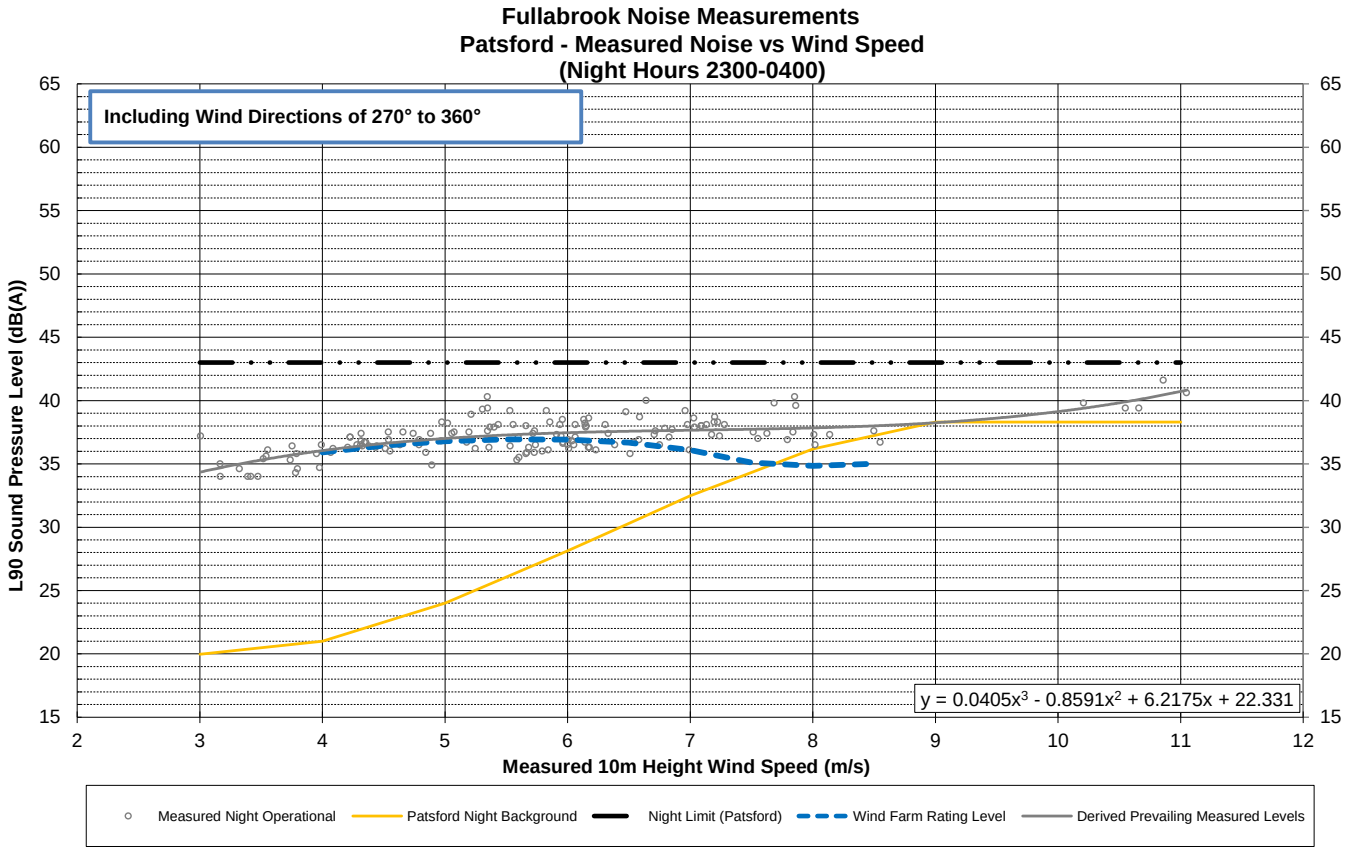

Fullabrook Noise Measurements
Patsford - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 0° to 90°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0438x³ + 0.6359x² - 1.7321x + 34.507
Measured Evening Operational
Patsford Evening Background
Daytime Limit (Patsford)
Wind Farm Rating Level
Derived Prevailing Measured Levels

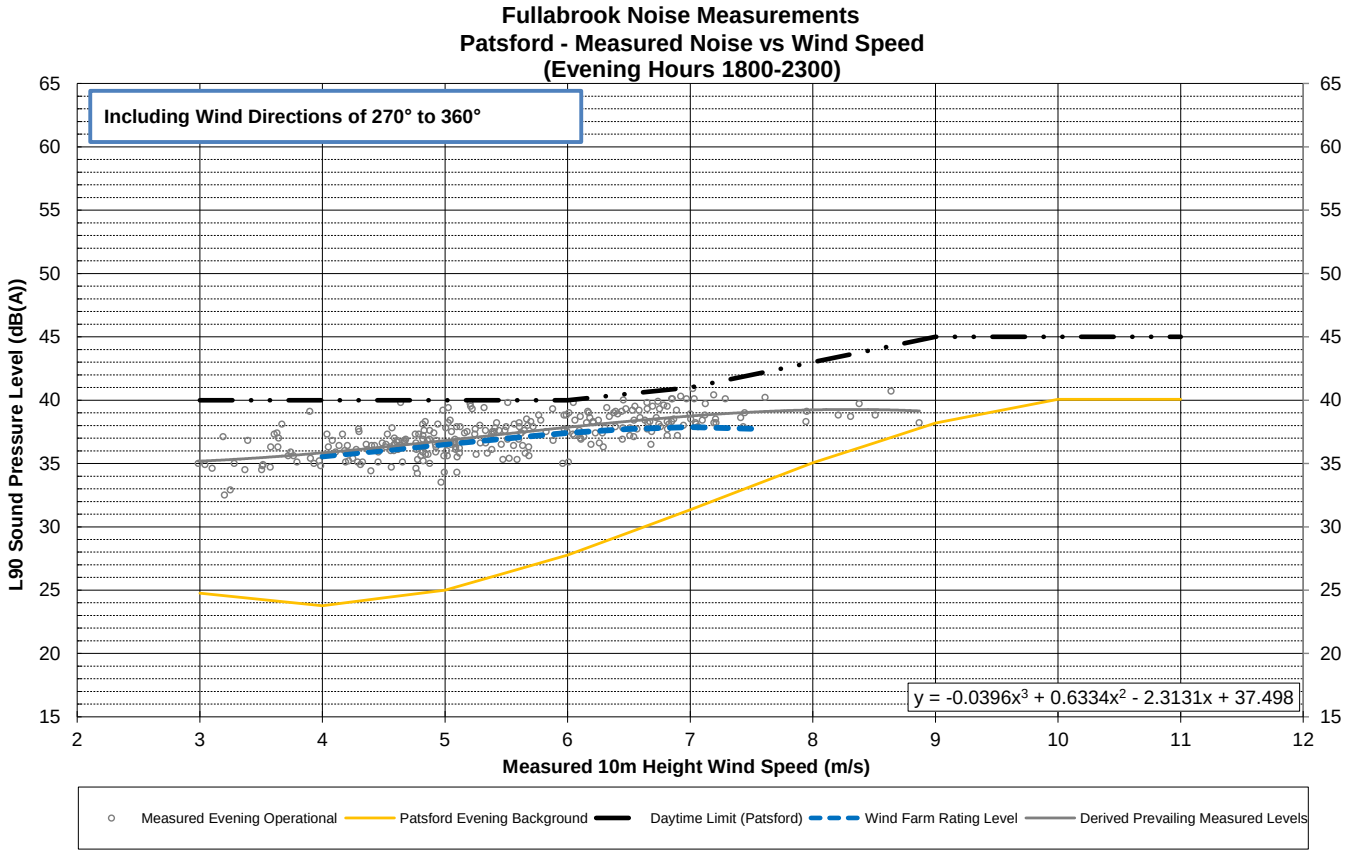

Fullabrook Noise Measurements
Patsford - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0123x³ - 0.0324x² - 0.3887x + 36.429
Measured Night Operational
Patsford Night Background
Night Limit (Patsford)
Wind Farm Rating Level
Derived Prevailing Measured Levels


Fullabrook Noise Measurements
Patsford - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 90° to 180°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0025x³ + 0.0736x² - 0.5994x + 36.985
Measured Evening Operational
Patsford Evening Background
Daytime Limit (Patsford)
Wind Farm Rating Level
Derived Prevailing Measured Levels


Fullabrook Noise Measurements
Patsford - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0132x³ - 0.3374x² + 3.4786x + 26.292
Measured Night Operational
Patsford Night Background
Night Limit (Patsford)
Wind Farm Rating Level
Derived Prevailing Measured Levels


Fullabrook Noise Measurements
Patsford - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 180° to 270°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0022x³ - 0.1256x² + 2.3487x + 28.448
Measured Evening Operational
Patsford Evening Background
Daytime Limit (Patsford)
Wind Farm Rating Level
Derived Prevailing Measured Levels


Fullabrook Noise Measurements
Patsford - Measured Noise vs Wind Speed
(Night Hours 2300-0400)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = 0.0405x³ - 0.8591x² + 6.2175x + 22.331
Measured Night Operational
Patsford Night Background
Night Limit (Patsford)
Wind Farm Rating Level
Derived Prevailing Measured Levels


Fullabrook Noise Measurements
Patsford - Measured Noise vs Wind Speed
(Evening Hours 1800-2300)
Including Wind Directions of 270° to 360°
L90 Sound Pressure Level (dB(A))
Measured 10m Height Wind Speed (m/s)
y = -0.0396x³ + 0.6334x² - 2.3131x + 37.498
Measured Evening Operational
Patsford Evening Background
Daytime Limit (Patsford)
Wind Farm Rating Level
Derived Prevailing Measured Levels

Appendix E

Noise Assessment Summary

Table 23 – Noise Compliance Assessment Results Summary – Burland Farm

Burland Farm Night-time		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Yes	The regression curve plotted through the measured night operational noise data indicates increasing noise levels at wind speeds above 7 m/s. In practice wind farm noise levels are not likely to increase in this way (as indicated by the predicted noise levels plotted) and therefore it is highly likely that the wind farm complies with the limits at higher wind speeds. It can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 2	Yes	-
Sector 3	Additional analysis required; see notes	The regression curve plotted through the measured night operational noise data shows increasing noise levels at wind speeds above 9 m/s. In practice wind farm noise levels are not likely to increase in this way (as indicated by the predicted noise levels plotted) and the higher noise levels measured at higher wind speeds are likely to be dominated by background noise, and therefore it is highly likely that the wind farm complies with the limits at higher wind speeds. It can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 4	Yes	-
Burland Farm Evening		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Yes	-
Sector 2	Yes	-
Sector 3	Additional analysis required; see notes	The regression curve plotted through the measured evening operational noise data shows increasing noise levels at wind speeds above 7 m/s. In practice wind farm noise levels are not likely to increase in this way (as indicated by the predicted noise levels plotted) and the higher noise levels measured at higher wind speeds are likely to be dominated by background noise, and therefore it is highly likely that the wind farm complies with the limits at higher wind speeds. It can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 4	Yes	-

Table 24 – Noise Compliance Assessment Results Summary – Binalong

Binalong Night-time		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Yes	The regression curve plotted through the measured night operational noise data indicates increasing noise levels at wind speeds above 7 m/s. In practice wind farm noise levels are not likely to increase in this way (as indicated by the predicted noise levels plotted) and therefore it is highly likely that the wind farm complies with the limits at higher wind speeds. It can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 2	Yes	-
Sector 3	Yes	-
Sector 4	Yes	-
Binalong Evening		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Additional analysis required; see notes	It is likely that noise sources other than the wind farm are causing the wind farm rating level to exceed the noise limits. The predicted noise levels indicate that in practice the limits are likely to be met by a significant margin, and it can be seen from the measured background noise data that background noise levels in sector 1 and 2 are on average higher than in sectors 3 and 4. It is highly likely that the wind farm complies with the noise limits in this sector. It can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 2	Additional analysis required; see notes	It is likely that noise sources other than the wind farm are causing the wind farm rating level to exceed the noise limits. It can be seen from the measured background noise data that background noise levels in sector 1 and 2 are on average higher than in sectors 3 and 4. It is highly likely that the wind farm complies with the noise limits in this sector. It should be noted that this is a sector where the property would not be downwind of the wind farm, and showed compliance with the limits at the lower wind speeds in 2014. It can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 3	Yes	-
Sector 4	Yes	-

Table 25 – Noise Compliance Assessment Results Summary – Halsinger

Halsinger Night-time		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Additional analysis required; see notes	The regression curve plotted through the measured night operational noise data indicates increasing noise levels at wind speeds above 7 m/s. In practice wind farm noise levels are not likely to increase in this way (as indicated by the predicted noise levels plotted) and the background noise charts indicate higher background noise levels in sector 1 than the other 3 sectors. It is, therefore, highly likely that the wind farm complies with the limits at higher wind speeds. It can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 2	Yes	-
Sector 3	Yes	-
Sector 4	Yes	-
Halsinger Evening		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Additional analysis required; see notes	The wind farm rating level indicates levels above the noise limits at wind speeds of 5 to 8 m/s. In practice wind farm noise levels are not likely to increase in this way (as indicated by the predicted noise levels plotted). The background noise charts indicate higher background noise levels in sector 1 than the other 3 sectors, and there is very high scatter in the measured evening noise levels which indicates that that wind farm is not the dominant noise source. It is, therefore, highly likely that the wind farm complies with the limits at higher wind speeds. It can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 2	Yes	-
Sector 3	Yes	-
Sector 4	Yes	-

Table 26 – Noise Compliance Assessment Results Summary – Beara

Beara Night-time		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Yes	-
Sector 2	Yes	-
Sector 3	Yes	-
Sector 4	Yes	-
Beara Evening		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Yes	-
Sector 2	Yes	-
Sector 3	Yes	-
Sector 4	Yes	-

Table 27 – Noise Compliance Assessment Results Summary – Metcombe

Metcombe Night-time		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Yes	The regression curve plotted through the measured night operational noise data indicates increasing noise levels at wind speeds above 7 m/s. In practice wind farm noise levels are not likely to increase in this way (as indicated by the predicted noise levels plotted) and therefore it is highly likely that the wind farm complies with the limits at higher wind speeds. It can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 2	Yes	-
Sector 3	Yes	-
Sector 4	Yes	-
Metcombe Evening		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Additional analysis required; see notes	The results indicate a wind farm rating level that is 0.2 dB above the noise limit at 7 m/s. Notwithstanding that this can be considered to be insignificant, it is unlikely that the wind farm is in breach of the noise limits, andit can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 2	Yes	-
Sector 3	Yes	-
Sector 4	Yes	-

Table 28 – Noise Compliance Assessment Results Summary – Northleigh

Northleigh Night-time		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Additional analysis required; see notes	The regression curve plotted through the measured night operational noise data indicates increasing noise levels at wind speeds above 7 m/s. In practice wind farm noise levels are not likely to increase in this way (as indicated by the predicted noise levels plotted) and therefore it is highly likely that the wind farm complies with the limits at higher wind speeds. It can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 2	Yes	-
Sector 3	Yes	-
Sector 4	Yes	-
Northleigh Evening		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Additional analysis required; see notes	Wind farm rating levels are above the noise limits between wind speeds of 5.5 and 8.5 m/s. It is highly unlikely that the scatter in the measured night noise data is caused by the wind farm, and is likely to be influenced by background noise. It should be noted that with the wind direction within sector 1, the property is not downwind of any turbines, and reference to the measured background noise levels indicate higher levels of background noise in sector 1. It is, therefore, highly likely that the wind farm is operating within its noise limits. It can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 2	Yes	-
Sector 3	Additional analysis required; see notes	The wind farm rating level is above the noise limit by 0.3 dB at 11 m/s. It is highly likely that this is due to the influence of background noise, and it can be seen from the predicted noise levels that at the higher wind speeds, due to the mitigation in place, predicted noise levels decrease with increasing wind speed. It is, therefore, highly likely that the wind farm is operating within its noise limits. It can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 4	Yes	-

Table 29 – Noise Compliance Assessment Results Summary – Patsford

Patsford Night-time		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Yes	The regression curve plotted through the measured night operational noise data indicates increasing noise levels at wind speeds above 7 m/s. In practice wind farm noise levels are not likely to increase in this way (as indicated by the predicted noise levels plotted) and therefore it is highly likely that the wind farm complies with the limits at higher wind speeds. It can be concluded with reasonable certainty that the rating noise levels do not exceed the limits.
Sector 2	Yes	-
Sector 3	Yes	-
Sector 4	Yes	-
Patsford Evening		
Wind Direction Sector	**Limits Met**	**Additional Notes**
Sector 1	Yes	-
Sector 2	Yes	-
Sector 3	Yes	-
Sector 4	Yes	-