

# Appendix B: Ambient Noise Assessment



PRE-CONSTRUCTION AMBIENT NOISE ASSESSMENT

# Bent Tree North Wind Project

Freeborn County, Minnesota

JULY 3, 2024

PREPARED FOR:

Wisconsin Power & Light  
(Alliant Energy Corporation)

PREPARED BY:

**Westwood**

**Westwood**

# Pre-Construction Ambient Noise Assessment

**Bent Tree North Wind Project**  
Freeborn County, Minnesota

**Prepared For:**

Wisconsin Power & Light (Alliant Energy  
Corporation)  
4902 N. Biltmore Lane  
Madison, WI 53718

**Prepared By:**

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Project Number: R0035761.00  
Date: July 3, 2024

## Executive Summary

Westwood Professional Services, Inc. (Westwood) was contracted to conduct pre-construction ambient noise monitoring for the Bent Tree North Wind Project (Project) located in Freeborn County, Minnesota. This monitoring was conducted as required by Minnesota Commerce Department's *Application Guidance for Site Permitting of Large Wind Energy Conversion Systems in Minnesota*. The measurement methodology was prepared in accordance with National Association of Regulatory Utility Commissioners (NARUC) guidance document prepared for the Minnesota Public Utilities Commission, *Assessing Sound Emissions from Proposed Wind Farms & Measuring the Performance of Completed Projects*.

Westwood collected measurements from April 2<sup>nd</sup> through April 15<sup>th</sup> at five (5) locations across the proposed Project area. Data was processed and filtered by precipitation and wind speeds, and overall daytime/nighttime averages were calculated.

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- Appendix D Tabulated Measurement & Weather Data
- Appendix E Representative 1/3-Octave Band Measurement Results

# 1.0 Site Description & Measurement Locations

The proposed Project is located in Freeborn County, Minnesota. Unattended long-term measurements were taken at five (5) monitoring points throughout the Project area. Locations were selected to represent the overall Project area. The primary land uses in the Project area are agricultural and rural residential. **Figure 1** shows an overview of the Project layout and measurement locations. Detailed measurement location figures can be found in **Appendix A**.

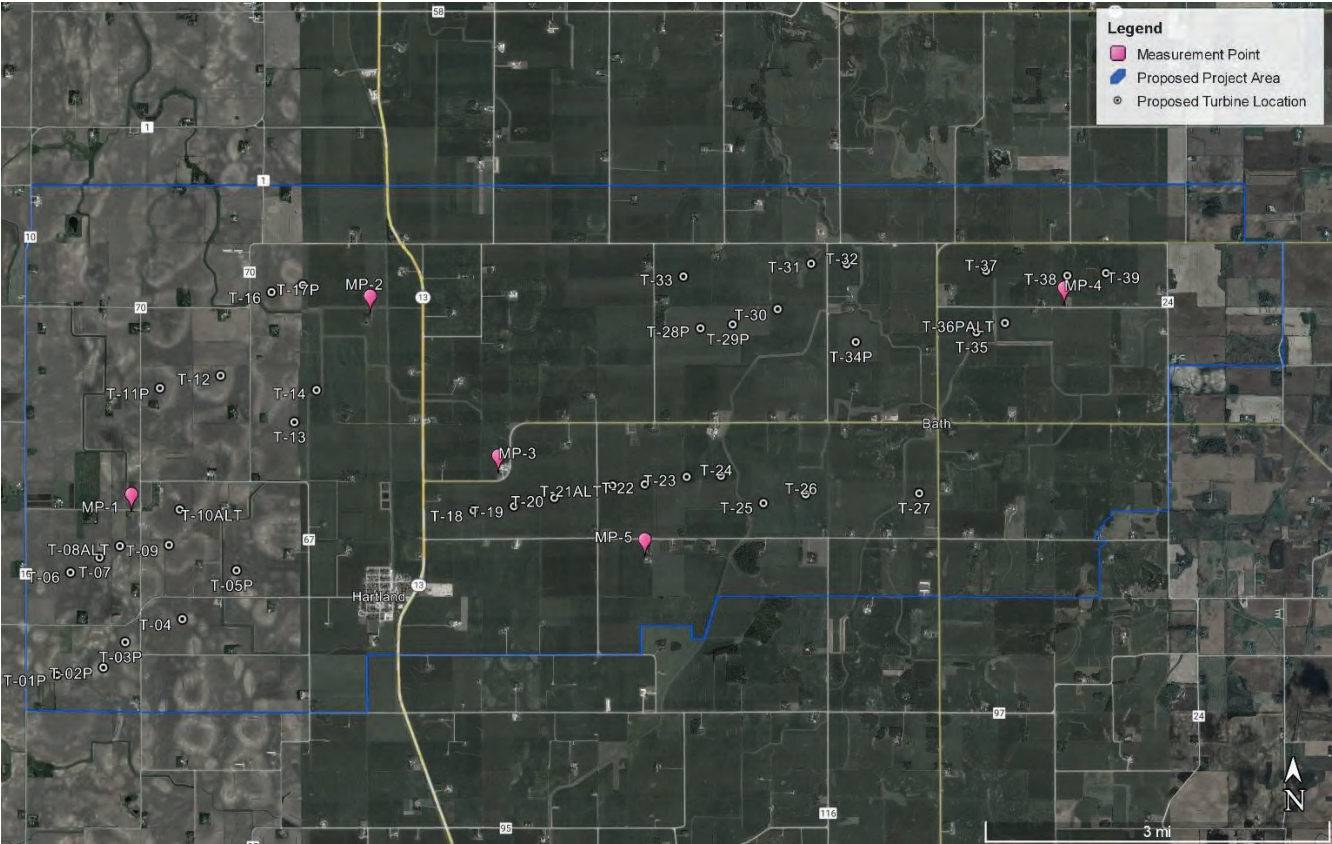


Figure 1: Project Overview & Measurement Locations

## 2.0 Regulatory Setting

The relevant regulations are set forth within the Minnesota Commerce Department's *Application Guidance for Site Permitting of Large Wind Energy Conversion Systems in Minnesota*:

- 8.4.1. Provide existing ambient sound levels and projected post-project sound levels including total sound and turbine only noise. Provide the method or type of model used to determine noise levels.

The methodology herein was developed with reference to with the National Association of Regulatory Utility Commissioners (NARUC) guidance document prepared for the Minnesota Public Utilities Commission, *Assessing Sound Emissions from Proposed Wind Farms & Measuring the Performance of Completed Projects* as well as the Minnesota Commerce Department's *Guidance for Large Wind Energy Conversion System Noise Study Protocol and Report*.

## 3.0 Measurement Methodology

Long-term unattended noise measurements were conducted over 14 days at 5 locations throughout the Project area. Monitoring was conducted during leaf off conditions, capturing a variety of wind speed conditions in order to provide wholly representative data. Field photos were taken at each measurement location, and a field sheet was completed for each measurement window. Weather readings were collected from the nearest meteorological station located within the proposed Project area. Field photos and field sheets can be found in **Appendix B** and **Appendix C** respectively.

Measurements were taken with NTI XL3 Class I Sound Level Meters, equipped with 7-inch windscreens. Each meter was within its annual lab calibration window. Additionally, each meter was field calibrated before and after the measurement period with a CAL 200 Class I calibrator. This instrumentation complies with ANSI S1.4 Class I and IEC 61672 Class I instrumentation requirements. Each meter was sited away from any acoustically reflective surfaces and set to record 1-second A-weighted broadband Leq values continuously for the duration of the measurement period. Leq is the time-averaged sound level and represents the total sound energy measured over a period of time. Meters were also set to record audio throughout the measurement period.

Long-term meters were deployed to collect data for two weeks. Measurements were recorded starting the afternoon of April 2<sup>nd</sup> and ending the afternoon of April 15<sup>th</sup>, 2024.

## 4.0 Monitoring Results

Measurement data was converted from measured LAeq-1 second to LAeq-1 hour averages. Noise levels varied over the course of the measurement period, primarily due to varied wind speeds and rural traffic. Measurement data was processed, filtered, and compared with the concurrently measured meteorological data. Data collected during periods of precipitation or when wind speeds exceeded 5.5 m/s (12 mph) was excluded from the analysis. The filtered data

was sorted into daytime and nighttime. Daytime and nighttime averages at each measurement location are shown in **Table 1** below.

Table 1 Measured Noise Level Averages

| Measurement Location | Average Leq-1 hour (dBA) |                          |
|----------------------|--------------------------|--------------------------|
|                      | Daytime (7 am – 10 pm)   | Nighttime (10 pm – 7 am) |
| MP-1                 | 54.8                     | 54.7                     |
| MP-2                 | 53.5                     | 52.7                     |
| MP-3                 | 53.8                     | 49.6                     |
| MP-4                 | 51.9                     | 50.7                     |
| MP-5                 | 54.3                     | 54.7                     |

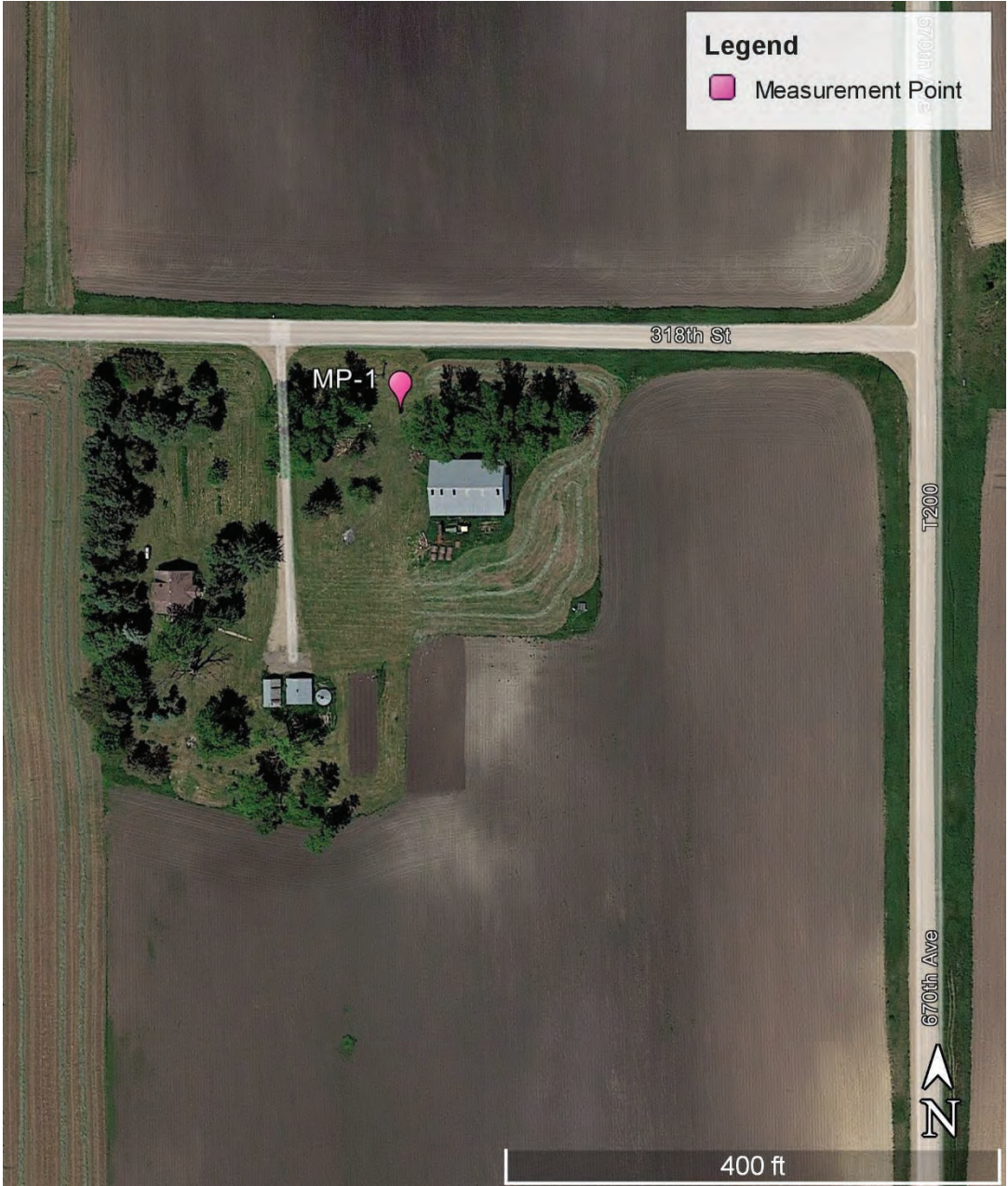
Audio review confirmed that ambient noise levels in the Project area are primarily influenced by agricultural activity, birdsong, and local traffic. No turbine noise from existing wind turbine arrays was identified in the audio review of measurement periods exceeding 50 dBA.

Tabulated hourly measurement data and weather readings can be found in **Appendix D**. Representative 3<sup>rd</sup> octave band spectra for all 5 locations can be found in **Appendix E**.



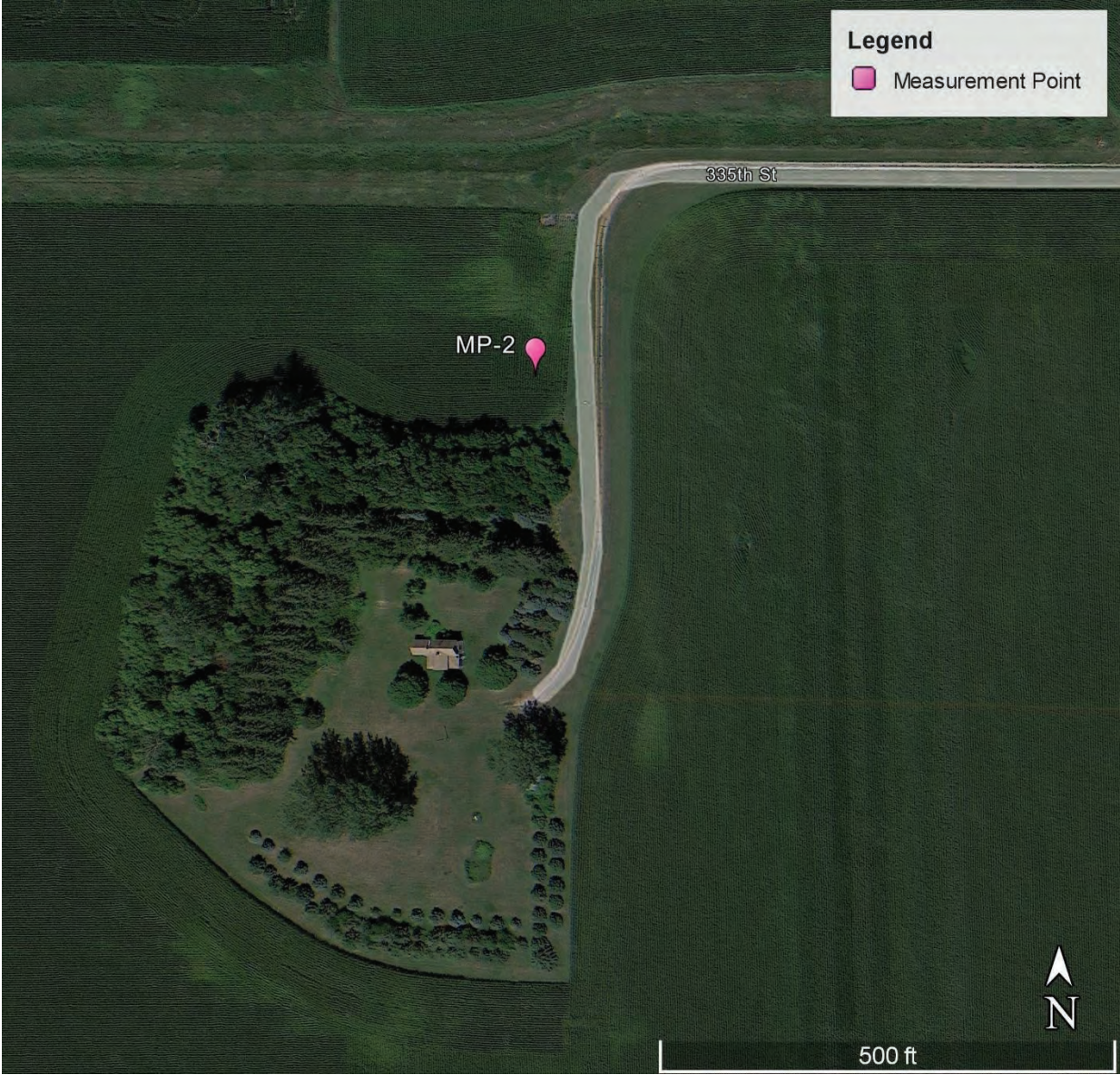
**Appendix A**  
**Detailed Measurement Location Figures**

MP-1





MP-2





MP-3





MP-4



MP-5



## **Appendix B**

### **Field Photographs**



MP-1



Facing North



Facing east



Facing south



Facing west



MP-2



Facing north



Facing east



Facing south



Facing west



MP-3



Facing north



Facing east



Facing south



Facing west



MP-4



Facing north



Facing east



Facing south



Facing west



MP-5



Facing north



Facing east



Facing south



Facing west



**Appendix C**  
**Field Sheets**

# Westwood SOUND/NOISE TEAM

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## Unattended Field Noise Measurement Sheet

|                                       |                            |
|---------------------------------------|----------------------------|
| Project Name: Bent Tree North         | Project #: R0035761.00     |
| Project Location: Freeborn County, MN | Measurement Location: MP-1 |
| Date: 4/2                             | Field Engineer: ACS & RDG  |

| Sound Level Meter                                                     | Field Calibration          | Meteorological Data                                              |
|-----------------------------------------------------------------------|----------------------------|------------------------------------------------------------------|
| Model: NTi XL3                                                        | Model: CAL200              | Model:                                                           |
| SN: 771 <small>Mic match? <input checked="" type="checkbox"/></small> | SN: 18893                  | SN:                                                              |
| Weighting: <u>A</u> /C/Z                                              | Calibration (dB): 94/(114) | Precipitation: <u>Yes</u> /No Temp (°F):                         |
| Response: <u>Slow</u> /Fast                                           | Pre-Test: -1.2 dB          | Wind: Steady / Gusty / Calm ____ m/s / mph                       |
| Windscreen: <u>Yes</u> /No                                            | Post-Test: +0.8 dB         | RH (%): Cloud Cover (%):                                         |
| Topo: Flat / <u>Hilly</u>                                             |                            | Barometric Pressure (inHg):                                      |
| Terrain: Hard / Soft / <u>Mixed</u> / <u>Agg</u> / Snow               |                            | Deployed to Record Meteorological Data? <input type="checkbox"/> |
| GPS Coordinates at SLM Location: 43.8145022, -93.5298940              |                            |                                                                  |

| Location ID | Start Time | Stop Time | Notes/Events                                 |
|-------------|------------|-----------|----------------------------------------------|
| MP-1        | 8:40am     |           |                                              |
| 4/10/24     | 16:21      |           | 4/3 10:35 am decked & running, new heat pack |
| 4/11/24     | 13:04      |           | battery swap, running                        |
| 4/15        |            |           | bat swap, running ✓                          |
|             |            |           | retrieved                                    |
|             |            |           |                                              |
|             |            |           |                                              |
|             |            |           |                                              |

|                                             |                                                                                                             |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Photos? <input checked="" type="checkbox"/> | Notable additional noise sources:                                                                           |
| Site Sketch:                                | Additional notes:<br>Connect Key: DFQDK-CVWC3<br>Hotspot: #3 PW: culvers 1<br>non-op rail line along rte 13 |

# Westwood SOUND/NOISE TEAM

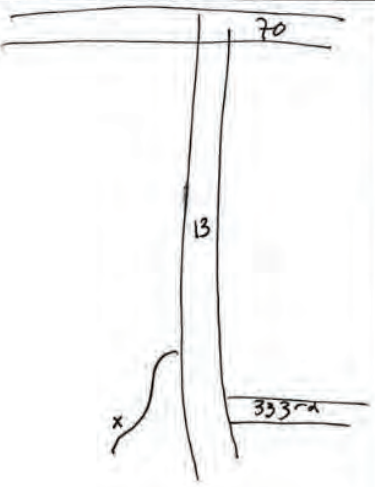
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## Unattended Field Noise Measurement Sheet

|                                       |                            |
|---------------------------------------|----------------------------|
| Project Name: Bent Tree North         | Project #: R0035761.00     |
| Project Location: Freeborn County, MN | Measurement Location: MP-2 |
| Date: 4/2                             | Field Engineer: ACS & RDG  |

| Sound Level Meter                                      | Field Calibration          | Meteorological Data                                              |
|--------------------------------------------------------|----------------------------|------------------------------------------------------------------|
| Model: NTi XL3                                         | Model: CAL200              | Model:                                                           |
| SN: 89) Mic match? <input checked="" type="checkbox"/> | SN: 18893                  | SN:                                                              |
| Weighting: <u>D</u> /C/Z                               | Calibration (dB): 94/(114) | Precipitation: Yes / No                                          |
| Response: <u>Slow</u> / Fast                           | Pre-Test: -0.1 dB          | Temp (°F):                                                       |
| Windscreen: <u>Yes</u> / No                            | Post-Test: -0.2 dB         | Wind: Steady / Gusty / Calm _____ m/s / mph                      |
| Topo: <u>Flat</u> / Hilly                              |                            | RH (%):                                                          |
| Terrain: Hard / Soft / Mixed / <u>Agg</u> / Snow       |                            | Cloud Cover (%):                                                 |
|                                                        |                            | Barometric Pressure (inHg):                                      |
|                                                        |                            | Deployed to Record Meteorological Data? <input type="checkbox"/> |
| GPS Coordinates at SLM Location: 43.839376, -93.488406 |                            |                                                                  |

| Location ID | Start Time | Stop Time | Notes/Events                                    |
|-------------|------------|-----------|-------------------------------------------------|
| MP-2        | 9:10       |           |                                                 |
| 4/10/24     | 16:07      |           | 4/3 10:49 am checked & running, heat pack added |
| 4/11/24     | 12:50      |           | Battery swap, checked + running                 |
| 4/15        |            |           | Battery swap, checked + running                 |
|             |            |           | retrieved                                       |
|             |            |           |                                                 |
|             |            |           |                                                 |
|             |            |           |                                                 |

|                                                                                                  |                                                                                                                  |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Photos? <input checked="" type="checkbox"/>                                                      | Notable additional noise sources:                                                                                |
| Site Sketch:  | Additional notes:<br>Connect Key:<br>Hotspot: <del>None</del> None<br>MP-2 spot directly along crossing is muddy |



# Westwood SOUND/NOISE TEAM

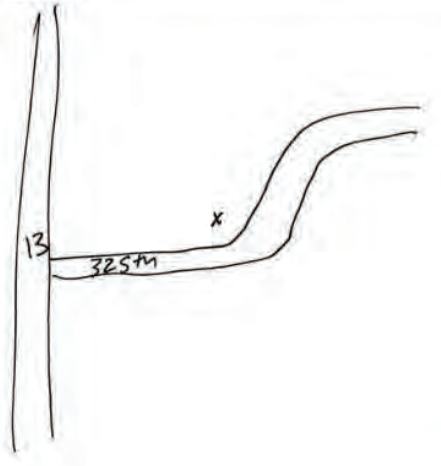
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## Unattended Field Noise Measurement Sheet

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| Project Name: Bent Tree North         | Project #: R0035761.00            |
| Project Location: Freeborn County, MN | Measurement Location: <u>MP-3</u> |
| Date: 4/2                             | Field Engineer: ACS & RDG         |

| Sound Level Meter                                                            | Field Calibration                   | Meteorological Data                                              |
|------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------------------|
| Model: NTi XL3                                                               | Model: CAL200                       | Model:                                                           |
| SN: <u>905</u> <small>Mic match? <input checked="" type="checkbox"/></small> | SN: 18893                           | SN:                                                              |
| Weighting: <u>A</u> / C / Z                                                  | Calibration (dB): 94 ( <u>114</u> ) | Precipitation: Yes / No    Temp (°F):                            |
| Response: <u>Slow</u> / Fast                                                 | Pre-Test: -0.1 dB                   | Wind: Steady / Gusty / Calm    m/s / mph                         |
| Windscreen: <u>Yes</u> / No                                                  | Post-Test: -0.1 dB                  | RH (%):    Cloud Cover (%):                                      |
| Topo: <u>Flat</u> / Hilly                                                    |                                     | Barometric Pressure (inHg):                                      |
| Terrain: Hard / Soft / Mixed / <u>Agg</u> / Snow                             |                                     | Deployed to Record Meteorological Data? <input type="checkbox"/> |
| GPS Coordinates at SLM Location: <u>43.819533, -93.466143</u>                |                                     |                                                                  |

| Location ID    | Start Time    | Stop Time    | Notes/Events                                            |
|----------------|---------------|--------------|---------------------------------------------------------|
| <u>MP-3</u>    | <u>9:35am</u> |              |                                                         |
| <u>4/10/24</u> | <u>9:35am</u> | <u>15:50</u> | <u>4/3 10:57am checked &amp; running, new heat pack</u> |
| <u>4/11/24</u> |               | <u>12:41</u> | <u>cable snipped</u>                                    |
| <u>4/15</u>    |               |              | <u>homeowner chopped down tree 4/9/24</u>               |
|                |               |              | <u>new cable + battery cal + 0.1 and started</u>        |
|                |               |              | <u>chickens out in yard</u>                             |
|                |               |              | <u>retrieved</u>                                        |

|                                                                                                     |                                                                                               |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Photos? <input checked="" type="checkbox"/>                                                         | Notable additional noise sources:                                                             |
| Site Sketch:<br> | Additional notes:<br><u>connect key: T3C59-XPTV3</u><br><u>Hotspot: #4</u><br><u>PW: 1234</u> |

# Westwood SOUND/NOISE TEAM

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## Unattended Field Noise Measurement Sheet

|                                       |                                 |
|---------------------------------------|---------------------------------|
| Project Name: Bent Tree North         | Project #: R0035761.00          |
| Project Location: Freeborn County, MN | Measurement Location: MP-4      |
| Date: 4/2                             | Field Engineer: ACS & RDG + EMB |

| Sound Level Meter                                      | Field Calibration          | Meteorological Data                                              |
|--------------------------------------------------------|----------------------------|------------------------------------------------------------------|
| Model: NTi XL3                                         | Model: CAL200              | Model:                                                           |
| SN: 768 <input checked="" type="checkbox"/> Mic match? | SN: 18893                  | SN:                                                              |
| Weighting: (A) / C / Z                                 | Calibration (dB): 94 (114) | Precipitation: Yes / No                                          |
| Response: (Slow) / Fast                                | Pre-Test: -0.3 dB          | Temp (°F):                                                       |
| Windscreen: (Yes) / No                                 | Post-Test: +0.1 dB         | Wind: Steady / Gusty / Calm m/s / mph                            |
| Topo: (Flat) / Hilly                                   |                            | RH (%):                                                          |
| Terrain: Hard / Soft / Mixed / (Agg) / Snow            |                            | Cloud Cover (%):                                                 |
| GPS Coordinates at SLM Location: 43.840378, -93.367727 |                            | Barometric Pressure (inHg):                                      |
|                                                        |                            | Deployed to Record Meteorological Data? <input type="checkbox"/> |

| Location ID | Start Time | Stop Time | Notes/Events                                   |
|-------------|------------|-----------|------------------------------------------------|
| MP-4        | 10:00 am   |           |                                                |
| 4/4 Thurs   | 14:53      |           | 4/3 11:10 am checked & running, saw heat pack  |
|             |            |           | Meter checked, cable gnawed through & replaced |
|             |            |           | calibration new cable, +0.3 @ 14:53, hot spot  |
| 4/10        | 3:17       |           | + battery dead system running otherwise        |
|             |            |           | meter checked, cable frayed but running        |
| 4/11        | 12:12      |           | battery swap                                   |
| 4/15        |            |           | meter swap, recal -0.1, apply conduit, restart |

|                                             |                                                                                                    |
|---------------------------------------------|----------------------------------------------------------------------------------------------------|
| Photos? <input checked="" type="checkbox"/> | Notable additional noise sources: Train horn audible, bird feeder, furnace etc.                    |
| Site Sketch:                                | Additional notes:                                                                                  |
|                                             | <p>connect key: 2D MCD - JH42W</p> <p>Hotspot: #2 PW: 13699</p> <p>★ Accuright weather station</p> |



# Westwood SOUND/NOISE TEAM

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## Unattended Field Noise Measurement Sheet

|                                       |                            |
|---------------------------------------|----------------------------|
| Project Name: Bent Tree North         | Project #: R0035761.00     |
| Project Location: Freeborn County, MN | Measurement Location: MP-5 |
| Date: 4/2                             | Field Engineer: ACS & RDG  |

| Sound Level Meter                                      | Field Calibration          | Meteorological Data                                              |
|--------------------------------------------------------|----------------------------|------------------------------------------------------------------|
| Model: NTi XL3                                         | Model: CAL200              | Model:                                                           |
| SN: 763 <input checked="" type="checkbox"/> Mic match? | SN: 18893                  | SN:                                                              |
| Weighting: <u>A</u> /C/Z                               | Calibration (dB): 94/(114) | Precipitation: Yes / No    Temp (°F):                            |
| Response: <u>Slow</u> / Fast                           | Pre-Test: -0.1 dB          | Wind: Steady / Gusty / Calm    m/s / mph                         |
| Windscreen: <u>Yes</u> / No                            | Post-Test: 0.0 dB          | RH (%):    Cloud Cover (%):                                      |
| Topo: <u>Flat</u> / Hilly                              |                            | Barometric Pressure (inHg):                                      |
| Terrain: Hard / Soft / Mixed / <u>Agg</u> / Snow       |                            | Deployed to Record Meteorological Data? <input type="checkbox"/> |
| GPS Coordinates at SLM Location: 43.808862, -93.440662 |                            |                                                                  |

| Location ID | Start Time | Stop Time | Notes/Events                         |
|-------------|------------|-----------|--------------------------------------|
| MP-5        | 10:20am    |           | 11:20am                              |
|             |            |           | 4/3 checked & running, new heat pack |
| 4/10/24     |            | 15:38     | checked, battery swap                |
| 4/11/24     |            | 12:26     | checked, battery swap                |
| 4/15/24     |            |           | retrieved                            |
|             |            |           |                                      |
|             |            |           |                                      |
|             |            |           |                                      |

|                                             |                                                                                                                   |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Photos? <input checked="" type="checkbox"/> | Notable additional noise sources: non-audible WTCs to south                                                       |
| Site Sketch:                                | Additional notes:<br>connect key: Z2FZW-7MYZW<br>Hotspot: #1<br>pw: cvlvers2<br>* Snow accumulation south of I-90 |



## Appendix D Tabulated Measurement & Weather Data

| Date & Time  | LAeq-1 hour |      |      |      |      | Winds Speeds     |                | Average Rainfall (in/hour) |
|--------------|-------------|------|------|------|------|------------------|----------------|----------------------------|
|              | MP-1        | MP-2 | MP-3 | MP-4 | MP-5 | Hourly Avg (mph) | Max Gust (mph) |                            |
| 4/2/24 11:00 | 47.2        | 47.3 | 46.8 | 44.9 | 45.9 | 1.6              | 4.5            | 0.01                       |
| 4/2/24 12:00 | 51.1        | 46.3 | 47.6 | 43.8 | 45.2 | 1.4              | 4.5            | 0.00                       |
| 4/2/24 13:00 | 50.6        | 40.5 | 41.2 | 45.2 | 50.6 | 2.2              | 13.6           | 0.02                       |
| 4/2/24 14:00 | 53.2        | 48.1 | 43.3 | 39.7 | 54.2 | 6.0              | 18.3           | 0.00                       |
| 4/2/24 15:00 | 57.2        | 45.0 | 52.4 | 46.2 | 58.3 | 11.9             | 21.7           | 0.00                       |
| 4/2/24 16:00 | 55.8        | 55.6 | 50.1 | 57.5 | 58.8 | 13.7             | 23.9           | 0.00                       |
| 4/2/24 17:00 | 61.9        | 49.6 | 47.9 | 50.1 | 61.9 | 11.4             | 20.6           | 0.00                       |
| 4/2/24 18:00 | 60.0        | 49.3 | 48.5 | 56.1 | 57.8 | 11.9             | 22.8           | 0.00                       |
| 4/2/24 19:00 | 51.5        | 48.9 | 47.4 | 45.1 | 47.7 | 5.3              | 21.7           | 0.00                       |
| 4/2/24 20:00 | 50.2        | 46.3 | 43.1 | 44.1 | 50.9 | 6.6              | 17.2           | 0.00                       |
| 4/2/24 21:00 | 56.4        | 46.5 | 43.8 | 38.3 | 52.8 | 7.6              | 15.9           | 0.00                       |
| 4/2/24 22:00 | 54.4        | 46.9 | 44.6 | 41.4 | 47.5 | 5.7              | 17.2           | 0.00                       |
| 4/2/24 23:00 | 44.9        | 50.1 | 48.8 | 39.8 | 46.8 | 2.4              | 9.2            | 0.00                       |
| 4/3/24 0:00  | 54.9        | 49.4 | 40.4 | 43.5 | 58.1 | 8.8              | 20.6           | 0.00                       |
| 4/3/24 1:00  | 56.9        | 55.4 | 45.2 | 47.6 | 59.7 | 16.2             | 25.1           | 0.00                       |
| 4/3/24 2:00  | 56.8        | 55.1 | 50.4 | 45.1 | 58.7 | 17.4             | 28.6           | 0.00                       |
| 4/3/24 3:00  | 57.7        | 50.7 | 52.6 | 48.6 | 61.2 | 17.2             | 25.1           | 0.00                       |
| 4/3/24 4:00  | 60.4        | 57.6 | 52.8 | 54.3 | 65.1 | 19.8             | 29.8           | 0.00                       |
| 4/3/24 5:00  | 59.8        | 52.4 | 50.1 | 53.8 | 64.1 | 22.9             | 33.1           | 0.00                       |
| 4/3/24 6:00  | 59.6        | 51.4 | 60.6 | 53.4 | 64.6 | 22.7             | 30.9           | 0.00                       |
| 4/3/24 7:00  | 59.3        | 59.1 | 55.6 | 58.0 | 65.3 | 21.8             | 29.8           | 0.00                       |
| 4/3/24 8:00  | 61.3        | 54.2 | 56.1 | 55.8 | 61.6 | 24.4             | 33.1           | 0.00                       |
| 4/3/24 9:00  | 60.9        | 54.3 | 52.4 | 53.4 | 65.4 | 21.8             | 32.0           | 0.00                       |
| 4/3/24 10:00 | 65.0        | 59.6 | 57.3 | 56.4 | 68.1 | 22.4             | 29.8           | 0.00                       |
| 4/3/24 11:00 | 70.0        | 56.7 | 58.5 | 52.1 | 69.7 | 24.3             | 33.1           | 0.00                       |
| 4/3/24 12:00 | 69.0        | 64.4 | 65.2 | 53.3 | 65.5 | 22.2             | 32.0           | 0.00                       |
| 4/3/24 13:00 | 67.2        | 65.8 | 60.8 | 55.7 | 68.2 | 24.4             | 34.2           | 0.00                       |
| 4/3/24 14:00 | 66.0        | 49.3 | 59.3 | 57.2 | 66.9 | 22.3             | 35.3           | 0.00                       |
| 4/3/24 15:00 | 68.5        | 66.6 | 57.0 | 51.1 | 68.2 | 16.0             | 35.3           | 0.00                       |
| 4/3/24 16:00 | 71.1        | 60.0 | 59.2 | 53.7 | 70.3 | 16.3             | 36.5           | 0.00                       |
| 4/3/24 17:00 | 65.0        | 66.4 | 54.5 | 51.4 | 69.0 | 21.3             | 34.2           | 0.00                       |
| 4/3/24 18:00 | 66.0        | 48.2 | 55.1 | 53.2 | 59.5 | 8.9              | 25.1           | 0.00                       |
| 4/3/24 19:00 | 60.5        | 51.3 | 46.7 | 46.2 | 58.1 | 6.4              | 21.7           | 0.00                       |
| 4/3/24 20:00 | 60.7        | 51.2 | 45.5 | 40.7 | 53.1 | 7.8              | 17.2           | 0.00                       |
| 4/3/24 21:00 | 46.8        | 34.2 | 33.0 |      | 35.3 | 1.8              | 10.3           | 0.00                       |
| 4/3/24 22:00 | 23.9        | 38.0 | 30.9 |      | 24.3 | 3.4              | 9.2            | 0.00                       |
| 4/3/24 23:00 | 29.1        | 23.2 | 25.6 |      | 29.6 | 1.4              | 3.4            | 0.00                       |
| 4/4/24 0:00  | 22.1        | 29.2 | 27.9 |      | 24.4 | 0.5              | 2.2            | 0.00                       |
| 4/4/24 1:00  | 19.2        | 25.2 | 23.3 |      | 24.7 | 1.3              | 5.8            | 0.00                       |
| 4/4/24 2:00  | 24.1        | 28.7 | 26.7 |      | 27.5 | 4.3              | 5.8            | 0.00                       |
| 4/4/24 3:00  | 27.6        | 26.4 | 27.2 |      | 26.2 | 3.1              | 5.8            | 0.00                       |
| 4/4/24 4:00  | 28.5        | 27.9 | 20.5 |      | 26.2 | 2.1              | 6.9            | 0.00                       |
| 4/4/24 5:00  | 24.8        | 39.7 | 31.6 |      | 30.2 | 3.8              | 8.1            | 0.00                       |
| 4/4/24 6:00  | 32.7        | 34.8 | 40.6 |      | 33.4 | 6.9              | 9.2            | 0.00                       |
| 4/4/24 7:00  | 36.4        | 37.1 | 52.0 |      | 36.3 | 7.2              | 10.3           | 0.00                       |
| 4/4/24 8:00  | 43.4        | 48.3 | 43.6 |      | 48.3 | 9.7              | 17.2           | 0.00                       |
| 4/4/24 9:00  | 52.4        | 45.6 | 47.9 |      | 52.0 | 11.6             | 17.2           | 0.00                       |
| 4/4/24 10:00 | 53.4        | 44.5 | 44.5 |      | 52.6 | 8.0              | 19.5           | 0.00                       |
| 4/4/24 11:00 | 54.1        | 50.1 | 53.7 |      | 52.4 | 6.3              | 20.6           | 0.00                       |
| 4/4/24 12:00 | 56.0        | 51.3 | 42.2 |      | 55.4 | 6.0              | 20.6           | 0.00                       |
| 4/4/24 13:00 | 53.3        | 47.4 | 41.6 |      | 45.8 | 5.0              | 18.3           | 0.00                       |
| 4/4/24 14:00 | 47.7        | 41.0 | 39.5 |      | 45.7 | 3.7              | 12.5           | 0.00                       |
| 4/4/24 15:00 | 50.0        | 42.9 | 39.3 | 30.8 | 44.9 | 3.5              | 14.8           | 0.00                       |
| 4/4/24 16:00 | 43.4        | 38.2 | 45.3 | 28.0 | 40.0 | 4.9              | 17.2           | 0.00                       |
| 4/4/24 17:00 | 42.5        | 43.7 | 36.5 | 20.3 | 38.1 | 3.4              | 8.1            | 0.00                       |

| Date & Time  | LAeq-1 hour |      |      |      |      | Winds Speeds     |                | Average Rainfall (in/hour) |
|--------------|-------------|------|------|------|------|------------------|----------------|----------------------------|
|              | MP-1        | MP-2 | MP-3 | MP-4 | MP-5 | Hourly Avg (mph) | Max Gust (mph) |                            |
| 4/4/24 18:00 | 48.3        | 38.8 | 41.9 | 28.7 | 41.1 | 3.2              | 9.2            | 0.00                       |
| 4/4/24 19:00 | 45.1        | 37.6 | 35.2 | 18.6 | 36.3 | 1.9              | 4.5            | 0.00                       |
| 4/4/24 20:00 | 36.0        | 36.5 | 31.6 | 20.8 | 24.7 | 2.2              | 4.5            | 0.00                       |
| 4/4/24 21:00 | 51.9        | 37.4 | 23.5 | 19.6 | 24.9 | 4.1              | 6.9            | 0.00                       |
| 4/4/24 22:00 | 19.5        | 45.5 | 25.9 | 21.3 | 24.9 | 2.5              | 4.5            | 0.00                       |
| 4/4/24 23:00 | 25.2        | 41.6 | 40.1 | 29.6 | 23.3 | 0.9              | 2.2            | 0.00                       |
| 4/5/24 0:00  | 27.0        | 30.6 | 21.2 | 25.8 | 20.5 | 0.8              | 3.4            | 0.00                       |
| 4/5/24 1:00  | 22.3        | 17.0 | 17.9 | 36.8 | 19.0 | 1.5              | 2.2            | 0.00                       |
| 4/5/24 2:00  | 17.3        | 16.1 | 17.0 | 46.2 | 17.7 | 1.0              | 2.2            | 0.00                       |
| 4/5/24 3:00  | 28.2        | 20.2 | 25.2 | 54.0 | 17.8 | 1.2              | 2.2            | 0.00                       |
| 4/5/24 4:00  | 17.4        | 18.3 | 18.2 | 42.1 | 25.0 | 0.9              | 2.2            | 0.00                       |
| 4/5/24 5:00  | 18.6        | 25.3 | 24.4 | 40.8 | 29.0 | 1.1              | 2.2            | 0.00                       |
| 4/5/24 6:00  | 36.0        | 31.8 | 33.3 | 37.6 | 29.7 | 1.4              | 2.2            | 0.00                       |
| 4/5/24 7:00  | 48.4        | 37.8 | 39.8 | 39.4 | 39.0 | 2.4              | 8.1            | 0.00                       |
| 4/5/24 8:00  | 41.5        | 41.2 | 42.8 | 35.6 | 47.7 | 2.9              | 6.9            | 0.00                       |
| 4/5/24 9:00  | 49.5        | 49.4 | 31.8 | 45.2 | 34.5 | 6.4              | 12.5           | 0.00                       |
| 4/5/24 10:00 | 42.2        | 34.6 | 33.9 |      | 43.0 | 5.1              | 12.5           | 0.00                       |
| 4/5/24 11:00 | 46.3        | 32.1 | 43.4 |      | 28.7 | 8.5              | 15.9           | 0.00                       |
| 4/5/24 12:00 | 40.4        | 41.9 | 42.5 |      | 32.4 | 8.1              | 17.2           | 0.00                       |
| 4/5/24 13:00 | 39.1        | 41.4 | 48.2 |      | 28.7 | 8.5              | 17.2           | 0.00                       |
| 4/5/24 14:00 | 37.9        | 32.0 | 48.4 |      | 31.2 | 6.8              | 14.8           | 0.00                       |
| 4/5/24 15:00 | 43.8        | 43.3 | 36.8 | 35.0 | 29.7 | 8.4              | 14.8           | 0.00                       |
| 4/5/24 16:00 | 37.4        | 36.7 | 33.1 | 37.9 | 28.9 | 6.7              | 13.6           | 0.00                       |
| 4/5/24 17:00 | 30.7        | 36.5 | 32.4 | 53.0 | 33.6 | 6.7              | 11.4           | 0.00                       |
| 4/5/24 18:00 | 34.4        | 48.5 | 32.4 | 35.9 | 30.0 | 6.3              | 11.4           | 0.00                       |
| 4/5/24 19:00 | 41.6        | 34.5 | 27.6 | 38.3 | 30.8 | 5.4              | 10.3           | 0.00                       |
| 4/5/24 20:00 | 41.9        | 40.0 | 39.7 | 41.4 | 29.1 | 2.5              | 5.8            | 0.00                       |
| 4/5/24 21:00 | 43.8        | 30.4 | 28.0 | 23.7 | 26.2 | 0.9              | 4.5            | 0.00                       |
| 4/5/24 22:00 | 42.2        | 35.7 | 31.8 | 27.0 | 37.2 | 0.7              | 3.4            | 0.00                       |
| 4/5/24 23:00 | 45.0        | 34.6 | 48.2 | 24.2 | 32.9 | 1.0              | 5.8            | 0.00                       |
| 4/6/24 0:00  | 50.4        | 28.2 | 25.8 | 22.5 | 22.3 | 1.1              | 4.5            | 0.00                       |
| 4/6/24 1:00  | 28.2        | 41.1 | 22.5 | 35.4 | 22.2 | 2.9              | 5.8            | 0.00                       |
| 4/6/24 2:00  | 34.0        | 33.3 | 26.6 | 30.9 | 31.1 | 0.7              | 2.2            | 0.00                       |
| 4/6/24 3:00  | 29.6        | 27.9 | 32.7 | 24.9 | 32.8 | 1.5              | 3.4            | 0.00                       |
| 4/6/24 4:00  | 32.2        | 30.1 | 25.3 | 31.1 | 28.9 | 1.1              | 3.4            | 0.00                       |
| 4/6/24 5:00  | 32.0        | 30.7 | 30.4 | 23.2 | 32.2 | 0.9              | 2.2            | 0.00                       |
| 4/6/24 6:00  | 32.7        | 32.8 | 32.7 | 43.3 | 37.7 | 0.7              | 3.4            | 0.00                       |
| 4/6/24 7:00  | 40.8        | 42.1 | 38.7 | 46.2 | 41.9 | 2.3              | 5.8            | 0.00                       |
| 4/6/24 8:00  | 41.7        | 44.2 | 42.1 | 43.5 | 45.2 | 2.1              | 4.5            | 0.00                       |
| 4/6/24 9:00  | 53.7        | 52.8 | 60.1 | 59.1 | 51.3 | 2.9              | 6.9            | 0.00                       |
| 4/6/24 10:00 | 64.5        | 58.1 | 55.1 | 59.0 | 63.8 | 3.1              | 5.8            | 0.00                       |
| 4/6/24 11:00 | 64.6        | 61.5 | 56.2 | 58.6 | 64.7 | 3.5              | 11.4           | 0.00                       |
| 4/6/24 12:00 | 65.9        | 61.6 | 57.4 | 58.4 | 63.5 | 6.0              | 13.6           | 0.00                       |
| 4/6/24 13:00 | 63.0        | 65.2 | 60.5 | 61.1 | 63.2 | 6.1              | 13.6           | 0.00                       |
| 4/6/24 14:00 | 65.4        | 62.0 | 57.8 | 58.5 | 63.6 | 5.9              | 11.4           | 0.00                       |
| 4/6/24 15:00 | 64.9        | 60.3 | 57.5 | 60.1 | 64.5 | 4.8              | 14.8           | 0.00                       |
| 4/6/24 16:00 | 64.1        | 62.4 | 59.0 | 63.7 | 63.9 | 4.7              | 15.9           | 0.00                       |
| 4/6/24 17:00 | 65.3        | 61.1 | 55.8 | 61.0 | 60.9 | 5.5              | 14.8           | 0.00                       |
| 4/6/24 18:00 | 65.0        | 63.2 | 54.9 | 61.1 | 59.7 | 4.1              | 11.4           | 0.00                       |
| 4/6/24 19:00 | 62.6        | 63.6 | 51.5 | 60.6 | 58.5 | 4.4              | 12.5           | 0.00                       |
| 4/6/24 20:00 | 57.4        | 58.4 | 57.2 | 58.1 | 61.6 | 2.1              | 6.9            | 0.00                       |
| 4/6/24 21:00 | 57.8        | 62.6 | 53.1 | 60.6 | 61.9 | 0.0              | 0.0            | 0.00                       |
| 4/6/24 22:00 | 66.3        | 64.7 | 63.1 | 61.6 | 65.2 | 0.0              | 0.0            | 0.00                       |
| 4/6/24 23:00 | 63.5        | 60.5 | 58.4 | 59.3 | 63.6 | 0.0              | 0.0            | 0.00                       |
| 4/7/24 0:00  | 62.5        | 62.0 | 57.3 | 61.4 | 63.3 | 0.0              | 0.0            | 0.00                       |
| 4/7/24 1:00  | 64.6        | 65.1 | 56.3 | 57.4 | 61.5 | 0.0              | 0.0            | 0.00                       |
| 4/7/24 2:00  | 65.1        | 57.8 | 55.8 | 56.1 | 59.7 | 0.0              | 0.0            | 0.00                       |
| 4/7/24 3:00  | 61.9        | 59.4 | 51.1 | 55.4 | 58.3 | 0.0              | 0.0            | 0.00                       |

| Date & Time  | LAeq-1 hour |      |      |      |      | Winds Speeds     |                | Average Rainfall (in/hour) |
|--------------|-------------|------|------|------|------|------------------|----------------|----------------------------|
|              | MP-1        | MP-2 | MP-3 | MP-4 | MP-5 | Hourly Avg (mph) | Max Gust (mph) |                            |
| 4/7/24 4:00  | 62.1        | 59.3 | 53.2 | 60.0 | 59.0 | 0.0              | 0.0            | 0.00                       |
| 4/7/24 5:00  | 57.6        | 65.8 | 59.2 | 57.7 | 63.8 | 0.0              | 0.0            | 0.00                       |
| 4/7/24 6:00  | 64.5        | 57.8 | 56.2 | 57.4 | 62.7 | 0.0              | 0.0            | 0.00                       |
| 4/7/24 7:00  | 62.7        | 61.3 | 57.3 | 57.1 | 60.7 | 0.0              | 0.0            | 0.00                       |
| 4/7/24 8:00  | 63.2        | 62.8 | 57.2 | 59.2 | 55.1 | 0.6              | 4.5            | 0.00                       |
| 4/7/24 9:00  | 60.9        | 64.4 | 57.8 | 56.6 | 59.3 | 2.8              | 5.8            | 0.00                       |
| 4/7/24 10:00 | 63.1        | 60.3 | 55.1 | 58.7 | 59.1 | 4.1              | 8.1            | 0.00                       |
| 4/7/24 11:00 | 63.0        | 62.6 | 57.1 | 56.6 | 60.3 | 6.0              | 11.4           | 0.00                       |
| 4/7/24 12:00 | 62.9        | 61.6 | 55.1 | 55.8 | 59.1 | 8.6              | 20.6           | 0.00                       |
| 4/7/24 13:00 | 60.8        | 58.6 | 45.4 | 54.0 | 57.0 | 9.4              | 18.3           | 0.00                       |
| 4/7/24 14:00 | 62.8        | 58.0 | 53.3 | 53.1 | 59.9 | 9.4              | 20.6           | 0.00                       |
| 4/7/24 15:00 | 56.2        | 55.6 | 53.5 | 51.1 | 55.4 | 10.7             | 17.2           | 0.00                       |
| 4/7/24 16:00 | 52.3        | 51.7 | 47.9 | 51.7 | 48.3 | 13.4             | 25.1           | 0.00                       |
| 4/7/24 17:00 | 47.6        | 53.2 | 48.3 | 51.6 | 48.5 | 14.5             | 25.1           | 0.00                       |
| 4/7/24 18:00 | 52.7        | 54.9 | 54.9 | 47.0 | 48.1 | 9.5              | 20.6           | 0.00                       |
| 4/7/24 19:00 | 49.8        | 52.6 | 50.3 | 52.0 | 48.9 | 10.0             | 19.5           | 0.00                       |
| 4/7/24 20:00 | 54.8        | 56.3 | 51.3 | 54.5 | 51.3 | 9.5              | 14.8           | 0.00                       |
| 4/7/24 21:00 | 49.4        | 52.8 | 53.2 | 46.9 | 48.7 | 6.6              | 11.4           | 0.00                       |
| 4/7/24 22:00 | 48.6        | 52.4 | 44.5 | 46.2 | 48.6 | 8.4              | 14.8           | 0.00                       |
| 4/7/24 23:00 | 47.9        | 44.7 | 36.3 | 44.4 | 38.4 | 9.4              | 14.8           | 0.00                       |
| 4/8/24 0:00  | 46.6        | 40.2 | 40.3 | 37.2 | 37.1 | 6.8              | 13.6           | 0.00                       |
| 4/8/24 1:00  | 42.1        | 42.4 | 36.2 | 38.1 | 37.6 | 3.9              | 8.1            | 0.00                       |
| 4/8/24 2:00  | 42.4        | 40.6 | 35.1 | 37.9 | 39.3 | 4.5              | 10.3           | 0.00                       |
| 4/8/24 3:00  | 47.3        | 34.9 | 30.0 | 35.5 | 40.7 | 2.0              | 4.5            | 0.00                       |
| 4/8/24 4:00  | 39.4        | 48.4 | 31.7 | 32.8 | 35.3 | 1.1              | 4.5            | 0.00                       |
| 4/8/24 5:00  | 44.9        | 37.4 | 47.0 | 37.0 | 36.6 | 0.4              | 2.2            | 0.00                       |
| 4/8/24 6:00  | 39.4        | 34.5 | 40.8 | 28.4 | 36.6 | 0.6              | 2.2            | 0.00                       |
| 4/8/24 7:00  | 45.6        | 38.0 | 46.1 | 46.3 | 47.2 | 0.2              | 1.1            | 0.00                       |
| 4/8/24 8:00  | 43.8        | 37.6 | 48.8 | 46.3 | 52.2 | 0.4              | 2.2            | 0.00                       |
| 4/8/24 9:00  | 53.9        | 48.7 | 46.9 | 50.4 | 54.1 | 1.3              | 3.4            | 0.00                       |
| 4/8/24 10:00 | 41.7        | 36.2 | 53.1 | 50.5 | 55.0 | 2.1              | 3.4            | 0.00                       |
| 4/8/24 11:00 | 49.3        | 43.1 | 55.5 | 56.1 | 57.9 | 3.5              | 11.4           | 0.00                       |
| 4/8/24 12:00 | 41.0        | 45.8 | 57.8 | 54.2 | 57.8 | 4.1              | 13.6           | 0.00                       |
| 4/8/24 13:00 | 49.0        | 43.0 | 58.0 | 50.9 | 55.3 | 6.3              | 27.3           | 0.00                       |
| 4/8/24 14:00 | 42.9        | 35.7 | 46.3 | 50.3 | 53.6 | 9.0              | 23.9           | 0.00                       |
| 4/8/24 15:00 | 50.6        | 44.7 | 48.4 | 47.9 | 47.6 | 12.6             | 28.6           | 0.00                       |
| 4/8/24 16:00 | 54.7        | 39.8 | 49.1 | 49.3 | 49.8 | 10.8             | 21.7           | 0.00                       |
| 4/8/24 17:00 | 44.4        | 38.3 | 47.6 | 40.6 | 40.3 | 13.4             | 22.8           | 0.00                       |
| 4/8/24 18:00 | 55.2        | 29.6 | 41.6 | 38.3 | 35.7 | 10.4             | 17.2           | 0.00                       |
| 4/8/24 19:00 | 58.8        | 36.3 | 38.9 | 47.2 | 41.6 | 8.2              | 15.9           | 0.00                       |
| 4/8/24 20:00 | 33.7        | 36.5 | 46.8 | 41.4 | 33.6 | 7.1              | 14.8           | 0.00                       |
| 4/8/24 21:00 | 35.1        | 39.6 | 38.5 | 29.4 | 34.5 | 3.1              | 6.9            | 0.00                       |
| 4/8/24 22:00 | 36.0        | 25.8 | 44.9 | 29.7 | 41.2 | 2.6              | 5.8            | 0.00                       |
| 4/8/24 23:00 | 25.6        | 23.3 | 35.7 | 32.5 | 36.1 | 2.2              | 5.8            | 0.00                       |
| 4/9/24 0:00  | 26.1        | 28.4 | 36.9 | 38.5 | 42.2 | 1.7              | 3.4            | 0.00                       |
| 4/9/24 1:00  | 26.4        | 26.1 | 36.4 | 37.7 | 44.0 | 1.4              | 5.8            | 0.00                       |
| 4/9/24 2:00  | 27.5        | 28.0 | 38.6 | 38.8 | 40.1 | 2.2              | 5.8            | 0.00                       |
| 4/9/24 3:00  | 21.0        | 29.2 | 42.6 | 34.6 | 46.2 | 1.7              | 4.5            | 0.00                       |
| 4/9/24 4:00  | 34.4        | 37.2 | 38.4 | 30.6 | 39.9 | 2.1              | 6.9            | 0.00                       |
| 4/9/24 5:00  | 22.7        | 31.8 | 33.8 | 21.3 | 31.6 | 0.9              | 3.4            | 0.00                       |
| 4/9/24 6:00  | 45.7        | 28.7 | 37.3 | 35.7 | 31.0 | 1.4              | 3.4            | 0.00                       |
| 4/9/24 7:00  | 41.9        | 41.4 | 48.2 | 37.8 | 37.7 | 0.6              | 3.4            | 0.00                       |
| 4/9/24 8:00  | 40.8        | 38.9 | 41.9 | 44.7 | 41.8 | 2.5              | 5.8            | 0.00                       |
| 4/9/24 9:00  | 44.7        | 36.5 | 45.7 | 43.1 | 45.7 | 3.0              | 9.2            | 0.00                       |
| 4/9/24 10:00 | 43.0        | 33.0 | 41.7 | 50.2 | 44.4 | 2.0              | 6.9            | 0.00                       |
| 4/9/24 11:00 | 56.6        | 31.0 | 44.0 | 51.7 | 43.9 | 2.3              | 5.8            | 0.00                       |
| 4/9/24 12:00 | 48.6        | 31.6 | 51.3 | 42.4 | 46.4 | 1.9              | 4.5            | 0.00                       |
| 4/9/24 13:00 | 40.4        | 37.3 | 47.9 | 45.4 | 47.7 | 2.6              | 6.9            | 0.00                       |



| Date & Time   | LAeq-1 hour |      |      |      |      | Winds Speeds     |                | Average Rainfall (in/hour) |
|---------------|-------------|------|------|------|------|------------------|----------------|----------------------------|
|               | MP-1        | MP-2 | MP-3 | MP-4 | MP-5 | Hourly Avg (mph) | Max Gust (mph) |                            |
| 4/9/24 14:00  | 39.4        | 36.2 | 71.2 | 50.3 | 53.5 | 2.2              | 5.8            | 0.00                       |
| 4/9/24 15:00  | 43.0        | 49.0 | 59.0 | 47.3 | 54.9 | 2.1              | 6.9            | 0.00                       |
| 4/9/24 16:00  | 43.1        | 37.6 | 50.7 | 51.3 | 57.2 | 1.5              | 4.5            | 0.00                       |
| 4/9/24 17:00  | 41.9        | 38.7 | 46.7 | 52.0 | 51.6 | 1.7              | 5.8            | 0.00                       |
| 4/9/24 18:00  | 32.6        | 39.3 | 45.9 | 47.5 | 48.5 | 1.1              | 3.4            | 0.00                       |
| 4/9/24 19:00  | 53.6        | 30.7 | 40.6 | 49.4 | 37.8 | 2.0              | 4.5            | 0.00                       |
| 4/9/24 20:00  | 58.2        | 29.8 | 37.7 | 42.3 | 30.1 | 1.4              | 3.4            | 0.00                       |
| 4/9/24 21:00  | 48.4        | 29.2 | 36.4 | 23.2 | 29.5 | 0.7              | 2.2            | 0.00                       |
| 4/9/24 22:00  | 19.4        | 30.5 | 33.7 | 19.0 | 28.9 | 0.3              | 1.1            | 0.00                       |
| 4/9/24 23:00  | 29.9        | 30.3 | 40.4 | 30.1 | 32.8 | 0.6              | 2.2            | 0.00                       |
| 4/10/24 0:00  | 26.4        | 25.6 | 25.9 | 20.3 | 27.1 | 0.8              | 2.2            | 0.00                       |
| 4/10/24 1:00  | 19.3        | 32.1 | 23.9 | 18.8 | 27.4 | 0.7              | 2.2            | 0.00                       |
| 4/10/24 2:00  | 17.3        | 23.2 | 23.0 | 19.7 | 25.5 | 1.1              | 2.2            | 0.00                       |
| 4/10/24 3:00  | 20.4        | 25.2 | 22.4 | 18.2 | 23.6 | 1.9              | 6.9            | 0.00                       |
| 4/10/24 4:00  | 20.4        | 25.2 | 20.9 | 19.7 | 25.5 | 3.5              | 6.9            | 0.00                       |
| 4/10/24 5:00  | 19.6        | 26.7 | 24.7 | 25.5 | 24.8 | 3.9              | 9.2            | 0.00                       |
| 4/10/24 6:00  | 29.6        | 39.3 | 48.2 | 55.5 | 32.9 | 3.0              | 5.8            | 0.00                       |
| 4/10/24 7:00  | 40.8        | 49.6 | 41.9 | 38.2 | 37.9 | 1.9              | 4.5            | 0.00                       |
| 4/10/24 8:00  | 41.9        | 37.9 | 46.4 | 49.7 | 41.6 | 4.6              | 10.3           | 0.00                       |
| 4/10/24 9:00  | 43.8        | 33.1 | 41.1 | 42.1 | 39.3 | 5.8              | 10.3           | 0.00                       |
| 4/10/24 10:00 | 56.7        | 29.1 | 38.5 | 44.7 | 37.8 | 6.3              | 11.4           | 0.00                       |
| 4/10/24 11:00 | 36.4        | 26.3 | 50.1 | 37.7 | 36.3 | 7.3              | 12.5           | 0.00                       |
| 4/10/24 12:00 | 59.1        | 36.6 | 48.3 | 42.6 | 45.6 | 8.0              | 15.9           | 0.00                       |
| 4/10/24 13:00 | 40.2        | 30.7 | 49.3 | 38.2 | 46.6 | 9.2              | 13.6           | 0.00                       |
| 4/10/24 14:00 | 32.1        | 44.5 | 40.7 | 45.9 | 44.5 | 6.8              | 12.5           | 0.00                       |
| 4/10/24 15:00 | 41.5        | 44.7 | 41.5 | 35.3 | 42.9 | 8.9              | 17.2           | 0.00                       |
| 4/10/24 16:00 | 30.8        | 26.7 |      | 37.3 | 43.1 | 8.0              | 15.9           | 0.00                       |
| 4/10/24 17:00 | 45.2        | 40.8 |      | 36.4 | 35.0 | 7.3              | 12.5           | 0.00                       |
| 4/10/24 18:00 | 57.9        | 52.6 |      | 42.3 | 40.6 | 6.6              | 11.4           | 0.00                       |
| 4/10/24 19:00 | 31.8        | 30.5 |      | 35.8 | 41.5 | 6.5              | 12.5           | 0.00                       |
| 4/10/24 20:00 | 46.7        | 30.6 |      | 32.0 | 32.3 | 5.2              | 11.4           | 0.00                       |
| 4/10/24 21:00 | 46.0        | 27.5 |      | 31.8 | 31.1 | 2.6              | 8.1            | 0.00                       |
| 4/10/24 22:00 | 33.6        | 33.7 |      | 35.2 | 35.1 | 2.9              | 5.8            | 0.00                       |
| 4/10/24 23:00 | 19.9        | 27.3 |      | 19.4 | 24.1 | 3.1              | 5.8            | 0.00                       |
| 4/11/24 0:00  | 25.3        | 32.7 |      | 25.6 | 36.3 | 4.6              | 8.1            | 0.00                       |
| 4/11/24 1:00  | 20.2        | 28.9 |      | 23.8 | 28.7 | 7.1              | 12.5           | 0.00                       |
| 4/11/24 2:00  | 31.6        | 31.4 |      | 24.1 | 33.8 | 6.0              | 13.6           | 0.00                       |
| 4/11/24 3:00  | 30.6        | 31.7 |      | 23.6 | 31.7 | 6.1              | 13.6           | 0.00                       |
| 4/11/24 4:00  | 34.9        | 37.0 |      | 28.7 | 34.4 | 7.1              | 13.6           | 0.00                       |
| 4/11/24 5:00  | 44.0        | 41.3 |      | 36.5 | 48.5 | 8.4              | 13.6           | 0.00                       |
| 4/11/24 6:00  | 52.0        | 47.9 |      | 46.8 | 53.3 | 6.8              | 12.5           | 0.00                       |
| 4/11/24 7:00  | 42.6        | 41.5 |      | 48.1 | 52.7 | 7.2              | 14.8           | 0.00                       |
| 4/11/24 8:00  | 41.0        | 39.1 |      | 53.3 | 44.7 | 7.7              | 15.9           | 0.00                       |
| 4/11/24 9:00  | 42.2        | 37.7 |      | 38.6 | 43.8 | 8.8              | 19.5           | 0.00                       |
| 4/11/24 10:00 | 42.0        | 41.4 |      | 44.2 | 48.8 | 7.4              | 12.5           | 0.00                       |
| 4/11/24 11:00 | 44.8        | 36.5 |      | 43.1 | 52.5 | 8.9              | 17.2           | 0.00                       |
| 4/11/24 12:00 | 46.8        | 41.0 |      | 46.7 | 53.2 | 8.8              | 17.2           | 0.00                       |
| 4/11/24 13:00 | 60.5        | 44.0 | 44.4 | 44.9 | 52.5 | 6.7              | 17.2           | 0.00                       |
| 4/11/24 14:00 | 52.1        | 47.5 | 51.9 | 47.7 | 55.1 | 8.2              | 18.3           | 0.00                       |
| 4/11/24 15:00 | 62.2        | 51.6 | 58.1 | 45.4 | 57.7 | 6.8              | 13.6           | 0.00                       |
| 4/11/24 16:00 | 62.1        | 45.5 | 52.0 | 58.5 | 63.4 | 5.8              | 10.3           | 0.00                       |
| 4/11/24 17:00 | 72.4        | 47.3 | 52.7 | 39.9 | 46.8 | 6.2              | 15.9           | 0.00                       |
| 4/11/24 18:00 | 58.5        | 47.4 | 46.9 | 51.4 | 57.0 | 6.3              | 18.3           | 0.00                       |
| 4/11/24 19:00 | 52.2        | 45.1 | 55.8 | 51.5 | 54.0 | 5.6              | 10.3           | 0.00                       |
| 4/11/24 20:00 | 51.5        | 49.8 | 55.4 | 49.2 | 59.6 | 8.6              | 15.9           | 0.00                       |
| 4/11/24 21:00 | 43.1        | 39.2 | 46.7 | 37.2 | 43.8 | 9.8              | 14.8           | 0.00                       |
| 4/11/24 22:00 | 42.0        | 33.5 | 37.0 | 33.8 | 37.7 | 7.5              | 12.5           | 0.00                       |
| 4/11/24 23:00 | 47.6        | 39.3 | 38.0 | 34.4 | 46.1 | 13.3             | 21.7           | 0.00                       |

| Date & Time   | LAeq-1 hour |      |      |      |      | Winds Speeds     |                | Average Rainfall (in/hour) |
|---------------|-------------|------|------|------|------|------------------|----------------|----------------------------|
|               | MP-1        | MP-2 | MP-3 | MP-4 | MP-5 | Hourly Avg (mph) | Max Gust (mph) |                            |
| 4/12/24 0:00  | 46.1        | 37.4 | 39.5 | 37.5 | 42.4 | 13.5             | 23.9           | 0.00                       |
| 4/12/24 1:00  | 44.3        | 37.1 | 37.1 | 44.7 | 47.1 | 11.7             | 23.9           | 0.00                       |
| 4/12/24 2:00  | 40.4        | 35.3 | 36.1 | 35.8 | 47.2 | 11.0             | 19.5           | 0.04                       |
| 4/12/24 3:00  | 42.6        | 36.6 | 41.5 | 36.2 | 45.7 | 8.5              | 18.3           | 0.00                       |
| 4/12/24 4:00  | 41.4        | 36.3 | 43.1 | 37.3 | 44.9 | 8.2              | 19.5           | 0.00                       |
| 4/12/24 5:00  | 37.3        | 38.4 | 39.5 | 38.4 | 43.1 | 6.3              | 17.2           | 0.00                       |
| 4/12/24 6:00  | 37.3        | 40.9 | 47.7 | 46.4 | 43.9 | 4.1              | 8.1            | 0.00                       |
| 4/12/24 7:00  | 42.0        | 44.4 | 46.1 | 37.2 | 46.8 | 4.0              | 10.3           | 0.00                       |
| 4/12/24 8:00  | 40.9        | 44.3 | 43.4 | 41.8 | 46.0 | 4.9              | 10.3           | 0.00                       |
| 4/12/24 9:00  | 45.5        | 43.7 | 48.4 | 46.8 | 51.3 | 3.6              | 8.1            | 0.00                       |
| 4/12/24 10:00 | 52.0        | 47.3 | 47.3 | 46.4 | 53.3 | 4.4              | 10.3           | 0.00                       |
| 4/12/24 11:00 | 58.9        | 54.8 | 47.4 | 49.1 | 62.5 | 4.0              | 6.9            | 0.00                       |
| 4/12/24 12:00 | 59.6        | 63.1 | 53.4 | 49.5 | 62.8 | 5.0              | 11.4           | 0.00                       |
| 4/12/24 13:00 | 63.7        | 53.4 | 60.7 | 50.8 | 63.4 | 5.0              | 12.5           | 0.00                       |
| 4/12/24 14:00 | 60.0        | 56.3 | 48.6 | 55.9 | 65.6 | 3.8              | 9.2            | 0.00                       |
| 4/12/24 15:00 | 54.8        | 55.5 | 58.0 | 52.0 | 60.3 | 2.3              | 6.9            | 0.00                       |
| 4/12/24 16:00 | 52.7        | 46.2 | 51.9 | 56.2 | 60.9 | 1.6              | 4.5            | 0.00                       |
| 4/12/24 17:00 | 50.4        | 46.7 | 44.7 | 48.3 | 54.3 | 1.5              | 6.9            | 0.00                       |
| 4/12/24 18:00 | 48.6        | 44.7 | 45.3 | 40.7 | 55.3 | 1.8              | 4.5            | 0.00                       |
| 4/12/24 19:00 | 46.7        | 33.4 | 40.4 | 40.3 | 52.3 | 2.5              | 5.8            | 0.00                       |
| 4/12/24 20:00 | 47.1        | 35.2 | 29.3 | 40.0 | 25.4 | 3.4              | 6.9            | 0.13                       |
| 4/12/24 21:00 | 47.8        | 29.4 | 40.0 | 21.7 | 25.5 | 3.2              | 8.1            | 0.00                       |
| 4/12/24 22:00 | 18.3        | 17.3 | 28.5 | 19.3 | 23.9 | 0.7              | 3.4            | 0.00                       |
| 4/12/24 23:00 | 26.1        | 30.7 | 26.9 | 25.8 | 27.5 | 0.3              | 3.4            | 0.00                       |
| 4/13/24 0:00  | 18.3        | 16.3 | 17.2 | 23.4 | 19.8 | 1.1              | 4.5            | 0.00                       |
| 4/13/24 1:00  | 20.3        | 34.2 | 21.1 | 17.1 | 17.2 | 1.0              | 4.5            | 0.00                       |
| 4/13/24 2:00  | 17.3        | 31.2 | 27.0 | 16.9 | 17.8 | 1.5              | 3.4            | 0.00                       |
| 4/13/24 3:00  | 17.5        | 17.9 | 16.6 | 18.3 | 17.9 | 1.3              | 4.5            | 0.00                       |
| 4/13/24 4:00  | 20.1        | 23.6 | 29.1 | 16.9 | 17.7 | 1.2              | 4.5            | 0.00                       |
| 4/13/24 5:00  | 22.6        | 24.5 | 41.9 | 29.3 | 24.1 | 1.4              | 4.5            | 0.00                       |
| 4/13/24 6:00  | 31.7        | 34.3 | 36.3 | 38.1 | 32.4 | 1.3              | 4.5            | 0.00                       |
| 4/13/24 7:00  | 42.6        | 33.2 | 43.0 | 38.1 | 41.8 | 3.3              | 8.1            | 0.03                       |
| 4/13/24 8:00  | 48.4        | 42.2 | 44.2 | 37.3 | 41.9 | 5.0              | 9.2            | 0.10                       |
| 4/13/24 9:00  | 54.9        | 50.9 | 48.3 | 42.5 | 51.7 | 4.5              | 8.1            | 0.06                       |
| 4/13/24 10:00 | 55.4        | 47.2 | 50.1 | 53.3 | 52.7 | 4.3              | 9.2            | 0.02                       |
| 4/13/24 11:00 | 60.2        | 54.0 | 50.2 | 57.3 | 55.2 | 3.1              | 8.1            | 0.02                       |
| 4/13/24 12:00 | 61.9        | 54.9 | 56.5 | 58.3 | 57.3 | 2.1              | 4.5            | 0.06                       |
| 4/13/24 13:00 | 66.5        | 51.4 | 59.0 | 60.0 | 59.2 | 1.2              | 5.8            | 0.05                       |
| 4/13/24 14:00 | 61.1        | 51.9 | 56.1 | 56.2 | 60.7 | 1.8              | 4.5            | 0.12                       |
| 4/13/24 15:00 | 60.8        | 46.1 | 56.7 | 60.1 | 58.8 | 1.6              | 4.5            | 0.02                       |
| 4/13/24 16:00 | 60.6        | 47.5 | 53.4 | 60.6 | 58.7 | 1.7              | 4.5            | 0.03                       |
| 4/13/24 17:00 | 57.0        | 47.8 | 54.1 | 59.3 | 58.5 | 1.5              | 4.5            | 0.00                       |
| 4/13/24 18:00 | 59.3        | 44.0 | 56.1 | 58.2 | 58.6 | 1.3              | 3.4            | 0.00                       |
| 4/13/24 19:00 | 51.6        | 42.5 | 48.0 | 52.9 | 56.7 | 1.0              | 3.4            | 0.00                       |
| 4/13/24 20:00 | 43.5        | 40.8 | 45.9 | 46.9 | 46.4 | 0.9              | 3.4            | 0.00                       |
| 4/13/24 21:00 | 40.2        | 32.8 | 37.2 | 37.7 | 42.6 | 0.9              | 3.4            | 0.00                       |
| 4/13/24 22:00 | 37.5        | 37.8 | 44.1 | 40.2 | 46.2 | 1.3              | 4.5            | 0.01                       |
| 4/13/24 23:00 | 47.0        | 36.0 | 41.7 | 42.7 | 51.2 | 1.2              | 4.5            | 0.00                       |
| 4/14/24 0:00  | 38.0        | 31.7 | 38.5 | 30.9 | 42.6 | 0.9              | 3.4            | 0.00                       |
| 4/14/24 1:00  | 21.1        | 20.3 | 32.7 | 29.2 | 29.3 | 0.2              | 1.1            | 0.00                       |
| 4/14/24 2:00  | 22.4        | 22.1 | 27.3 | 21.5 | 29.0 | 1.2              | 4.5            | 0.00                       |
| 4/14/24 3:00  | 21.1        | 19.5 | 25.4 | 18.8 | 28.0 | 4.8              | 10.3           | 0.14                       |
| 4/14/24 4:00  | 43.4        | 26.5 | 24.0 | 20.2 | 22.2 | 2.2              | 8.1            | 0.05                       |
| 4/14/24 5:00  | 42.1        | 19.0 | 22.9 | 20.1 | 24.0 | 1.1              | 3.4            | 0.00                       |
| 4/14/24 6:00  | 30.8        | 37.5 | 38.3 | 46.8 | 25.9 | 1.5              | 4.5            | 0.00                       |
| 4/14/24 7:00  | 38.7        | 34.8 | 33.1 | 40.8 | 36.3 | 1.7              | 3.4            | 0.00                       |
| 4/14/24 8:00  | 55.5        | 49.2 | 42.1 | 41.9 | 40.7 | 2.7              | 6.9            | 0.00                       |
| 4/14/24 9:00  | 39.5        | 37.1 | 41.7 | 38.1 | 35.7 | 3.0              | 6.9            | 0.00                       |

| Date & Time   | LAeq-1 hour |      |      |      |      | Winds Speeds     |                | Average Rainfall (in/hour) |
|---------------|-------------|------|------|------|------|------------------|----------------|----------------------------|
|               | MP-1        | MP-2 | MP-3 | MP-4 | MP-5 | Hourly Avg (mph) | Max Gust (mph) |                            |
| 4/14/24 10:00 | 38.6        | 53.7 | 46.4 | 41.9 | 50.2 | 2.7              | 6.9            | 0.00                       |
| 4/14/24 11:00 | 33.9        | 41.3 | 34.4 | 51.5 | 41.0 | 3.3              | 6.9            | 0.00                       |
| 4/14/24 12:00 | 51.0        | 45.0 | 48.7 | 43.6 | 57.1 | 3.2              | 8.1            | 0.00                       |
| 4/14/24 13:00 | 51.7        | 52.7 | 43.4 | 46.8 | 60.7 | 3.1              | 6.9            | 0.00                       |
| 4/14/24 14:00 | 51.0        | 41.8 | 50.7 | 43.9 | 57.9 | 2.9              | 9.2            | 0.00                       |
| 4/14/24 15:00 | 56.5        | 46.3 | 44.1 | 40.6 | 53.8 | 2.9              | 13.6           | 0.00                       |
| 4/14/24 16:00 | 51.4        | 47.5 | 46.7 | 36.6 | 53.2 | 3.1              | 5.8            | 0.00                       |
| 4/14/24 17:00 | 49.0        | 38.2 | 42.0 | 45.1 | 45.3 | 2.2              | 8.1            | 0.00                       |
| 4/14/24 18:00 | 50.5        | 45.7 | 47.8 | 41.7 | 49.2 | 0.8              | 2.2            | 0.00                       |
| 4/14/24 19:00 | 44.1        | 40.4 | 38.6 | 35.9 | 49.2 | 0.2              | 1.1            | 0.00                       |
| 4/14/24 20:00 | 22.5        | 39.5 | 36.5 | 34.6 | 30.6 | 0.1              | 1.1            | 0.00                       |
| 4/14/24 21:00 | 19.0        | 26.9 | 22.2 | 32.5 | 35.4 | 0.7              | 2.2            | 0.00                       |
| 4/14/24 22:00 | 48.3        | 30.9 | 23.8 | 22.6 | 20.8 | 0.0              | 1.1            | 0.00                       |
| 4/14/24 23:00 | 31.7        | 23.7 | 23.9 | 16.8 | 17.5 | 0.2              | 1.1            | 0.00                       |
| 4/15/24 0:00  | 17.1        | 36.7 | 22.0 | 17.6 | 17.5 | 0.3              | 2.2            | 0.00                       |
| 4/15/24 1:00  | 16.6        | 19.3 | 24.7 | 17.0 | 17.6 | 0.0              | 1.1            | 0.00                       |
| 4/15/24 2:00  | 16.9        | 20.4 | 21.0 | 17.2 | 17.7 | 0.0              | 0.0            | 0.00                       |
| 4/15/24 3:00  | 17.4        | 30.8 | 27.2 | 19.4 | 18.6 | 0.0              | 0.0            | 0.00                       |
| 4/15/24 4:00  | 20.3        | 29.6 | 18.7 | 20.2 | 21.2 | 0.0              | 0.0            | 0.00                       |
| 4/15/24 5:00  | 17.8        | 21.4 | 27.4 | 27.7 | 25.9 | 0.0              | 0.0            | 0.00                       |
| 4/15/24 6:00  | 38.6        | 37.9 | 36.1 | 49.4 | 25.3 | 0.1              | 1.1            | 0.00                       |
| 4/15/24 7:00  | 50.1        | 34.7 | 47.7 | 57.4 | 33.1 | 0.9              | 3.4            | 0.00                       |
| 4/15/24 8:00  | 42.9        | 41.3 | 42.9 | 41.8 | 35.2 | 2.0              | 3.4            | 0.00                       |
| 4/15/24 9:00  | 38.4        | 42.6 | 38.0 | 39.7 | 36.7 | 3.3              | 6.9            | 0.00                       |
| 4/15/24 10:00 | 45.0        | 46.7 | 51.5 | 45.1 | 39.9 | 4.5              | 8.1            | 0.00                       |
| 4/15/24 11:00 | 38.8        | 43.3 | 39.1 | 41.1 | 38.4 | 4.8              | 8.1            | 0.00                       |
| 4/15/24 12:00 | 36.7        | 43.4 | 49.0 | 37.9 | 34.7 | 6.8              | 14.8           | 0.00                       |
| 4/15/24 13:00 | 42.4        | 40.4 | 36.3 | 40.5 | 37.7 | 7.7              | 13.6           | 0.00                       |
| 4/15/24 14:00 | 42.8        | 48.3 | 42.3 | 43.6 | 39.5 | 5.8              | 10.3           | 0.00                       |
| 4/15/24 15:00 | 44.0        | 46.5 | 39.1 | 39.7 | 38.1 | 2.4              | 6.9            | 0.00                       |
| 4/15/24 16:00 | 41.6        | 42.4 | 47.4 | 39.9 | 43.4 | 0.2              | 2.2            | 0.00                       |
| 4/15/24 17:00 | 42.2        | 47.7 | 41.4 | 41.6 | 41.2 | 1.1              | 3.4            | 0.00                       |
| 4/15/24 18:00 | 46.0        | 51.5 | 45.5 | 46.5 | 45.7 | 2.2              | 5.8            | 0.00                       |

\*Missing data due to wildlife interference and/or equipment maintenance.



## Appendix E

### Representative 1/3-Octave Band Measurement Results

| 1/3 Octave<br>Band Center<br>Frequency | 24-Hour Average from April 9 <sup>th</sup> |      |      |      |      |
|----------------------------------------|--------------------------------------------|------|------|------|------|
|                                        | MP-1                                       | MP-2 | MP-3 | MP-4 | MP-5 |
| 6.3                                    | 69.1                                       | 47.7 | 77.3 | 64.8 | 84.2 |
| 8                                      | 67.7                                       | 46.1 | 75.4 | 63   | 81.4 |
| 10                                     | 66.1                                       | 44.3 | 72.9 | 61   | 79.1 |
| 12.5                                   | 64.4                                       | 42.7 | 70   | 58.7 | 76.6 |
| 16                                     | 62.8                                       | 42.7 | 67   | 56.6 | 73.7 |
| 20                                     | 61.3                                       | 43   | 63.9 | 54.4 | 70.8 |
| 25                                     | 59.9                                       | 42.8 | 61   | 51.8 | 67.4 |
| 31.5                                   | 58.7                                       | 41.7 | 58   | 49.5 | 63.9 |
| 40                                     | 57.6                                       | 39.7 | 55   | 47.5 | 60.5 |
| 50                                     | 56.4                                       | 37.8 | 52.1 | 44.9 | 57.3 |
| 63                                     | 55.2                                       | 39.3 | 52.6 | 43   | 54.5 |
| 80                                     | 54.2                                       | 38.5 | 52.4 | 41.7 | 52.3 |
| 100                                    | 52.6                                       | 34.4 | 55.9 | 40   | 50.6 |
| 125                                    | 51.1                                       | 33.8 | 53.3 | 40.4 | 48.9 |
| 160                                    | 49.9                                       | 33.3 | 55.3 | 40.8 | 49.2 |
| 200                                    | 48.6                                       | 30.5 | 48.6 | 39.3 | 48.4 |
| 250                                    | 47                                         | 28.5 | 47   | 38.1 | 46.2 |
| 315                                    | 45.7                                       | 29   | 45.7 | 36.9 | 45.2 |
| 400                                    | 44.2                                       | 29.3 | 45.3 | 35.4 | 43.4 |
| 500                                    | 42.7                                       | 34.4 | 44.6 | 34.3 | 41.9 |
| 630                                    | 41.4                                       | 29.4 | 44.7 | 33.9 | 40.1 |
| 800                                    | 40                                         | 28.3 | 46.3 | 33.4 | 37.9 |
| 1000                                   | 41                                         | 32.3 | 45.9 | 32.9 | 36.2 |
| 1250                                   | 37.4                                       | 26.2 | 43.7 | 31.6 | 34.2 |
| 1600                                   | 36.1                                       | 25.7 | 41.4 | 31.2 | 31.9 |
| 2000                                   | 34.5                                       | 25.6 | 40.4 | 31.3 | 29.8 |
| 2500                                   | 33.1                                       | 29.2 | 42   | 37   | 28.4 |
| 3150                                   | 33.1                                       | 29.9 | 39.5 | 37.9 | 26.9 |
| 4000                                   | 35.6                                       | 30.6 | 38.1 | 35.6 | 25.8 |
| 5000                                   | 31.7                                       | 26.3 | 34.3 | 31   | 25.2 |
| 6300                                   | 29                                         | 21   | 31.2 | 26.7 | 25.1 |
| 8000                                   | 27.9                                       | 17.5 | 27.9 | 21.3 | 23.7 |
| 10000                                  | 26.9                                       | 11.7 | 24   | 11.9 | 12.2 |
| 12500                                  | 26.1                                       | 7.5  | 19.6 | 7.2  | 6.5  |
| 16000                                  | 25.4                                       | 5.5  | 13.7 | 4.7  | 4.9  |
| 20000                                  | 24.7                                       | 4.3  | 7.6  | 4    | 4.2  |