# Memo

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|---|---|
| **To:** | Angela van der Kroft (SHL) |
| **From:** | Reymar Victoria (WSP) |
| **Subject:** | **Hunter Power Project – Noise commissioning tests for gas-fired operations** |
| **Our ref:** | PS227195-WSP-SYD-ACO-MEM-01 Rev0.docx |
| **Date:** | **15 August 2025** |

# 1. Introduction

## 1.1 Project background

Snowy Hydro Limited (SHL) operates the Hunter Power Project (HPP) power station located at Hart Road, Loxford, NSW 2326 ('the Site'), in the lower Hunter region of New South Wales. HPP power station is a gas-fired power station with a diesel back-up which plays a critical role in maintaining energy security during periods of peak demand. It is essential that its operation remains compliant with established environmental standards, including those governing environmental noise emissions.

SHL has commissioned WSP Australia Pty Ltd (WSP) to conduct environmental noise monitoring to determine noise emissions from the operation of the power station and its potential impacts to nearby noise-sensitive receivers. These impacts were assessed against noise limits established in the Site's Environmental Protection License (EPL), as administered by the NSW Environmental Protection Authority (EPA).

This memo provides a summary of the noise monitoring program carried out during commissioning tests from 26 July 2025 to 03 August 2025 when the HPP power station was operating using natural gas to fuel the turbines.

## 1.2 Scope

The scope of the noise monitoring and memo are to measure noise emissions from the operation of the Site and assess the potential noise impacts with respect to relevant criteria. This report details the following:

- Section 2 presents the relevant noise criteria which apply to the Site
- Section 3 describes the locations where noise monitoring was conducted and the measurement methodology
- Section 4 presents the results of the noise monitoring

## 1.3 Reference documents

The following documents were referenced to inform the requirements of the noise monitoring, methodology, assessment, and the preparation of this report:

- NSW EPA, *Environmental Protection Licence (EPL) 21627*, licence version date 13 June 2025 ('EPL 21627')
- NSW DPIE, Infrastructure Approval for SSI-12590060, dated 17 December 2021 ('Infrastructure Approval')

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- NSW EPA, *Noise Policy for Industry*, 2017 (NPfI)
- NSW EPA, *Approved methods for the measurement and analysis of environmental noise in NSW*, 2022
- Australian Standards, *AS 1055 Acoustics – Description and measurement of environmental noise*, 1997 ('AS 1055')

# 2. Project noise criteria

The noise limits associated with operation of the Site were established in the Infrastructure Approval and EPL 21627. It is noted that the noise limits in both the Infrastructure Approval and EPL 21627 are the same, and is reproduced in Table 2.1.

*Table 2.1 Project noise criteria*

| Location | Day [1] – $L_{Aeq(15\text{-}min)}$ | Evening [2] – $L_{Aeq(15\text{-}min)}$ | Night [3] – $L_{Aeq(15\text{-}min)}$ | Night [3] – $L_{AFmax}$ |
|---|---|---|---|---|
| 103 Bishops Bridge Rd, Sawyers Gully | 50 | 48 | 41 | 52 |
| 10 Dawes Ave, Loxford | 45 | 45 | 43 | 53 |
| 20 Bowditch Ave, Loxford | 43 | 43 | 38 | 52 |
| 464 Cessnock Rd, Gillieston Heights | 40 | 35 | 35 | 52 |
| 59 Sawyers Gully Rd, Sawyers Gully | 42 | 42 | 38 | 52 |

1. Day means the period from 7am to 6pm Monday to Saturday, and the period from 8am to 6pm Sundays and Public Holidays;
2. Evening means the period from 6pm to 10pm; and
3. Night means the period from 10pm to 7am Monday to Saturday, and the period from 10pm to 8am Sundays and Public Holidays.

In accordance with EPL 21627, these noise limits apply under the following meteorological conditions:

- DAY: Stability Categories A, B, C, and D with wind speeds up to and including 3m/s at 10m above ground level.
- EVENING: Stability Categories A, B, C, and D with wind speeds up to and including 3m/s at 10m above ground level.
- NIGHT: Stability Categories A, B, C, and D with wind speeds up to and including 3m/s at 10m above ground level; or Stability Categories E and F with wind speeds up to and including 3m/s at 10m above ground level.

For those meteorological conditions not referred to above, the noise limits that apply are the noise limits in Table 2.1 plus 5 dB.

# 3. Methodology

The noise monitoring was conducted over five separate periods of operations between Saturday, 26 July 2025 to Sunday, 03 August 2025 when the HPP power station was operating using natural gas as fuel.

## 3.1 Site operations

Noise monitoring was conducted during the following periods where the power station was operating under various power generation load conditions:

*Table 3.1 Site operations during the noise monitoring program*

| Event | Date and time | Operating load |
|---|---|---|
| 1 | 26/07/2025 | Power station was operating on full speed with no load. |
| 2 | 27/07/2025 | 17 MW (5%) from 7:10 PM and increased up to 73 MW (20%) from 10:00 PM. |
| 3 | 30/07/2025 | 188 MW (50%) from 7:20 PM until 1:00 AM. |
| 4 | 01/08/2025 | 240 MW (66%) from 4:00 PM and increased up to 369 MW (100%) from 9:00 PM |

| Event | Date and time | Operating load |
|---|---|---|
| 5 | 03/08/2025 | 280 MW (77%) from 7:20 PM, increased to 369 MW (100%) at 7:45 PM and down to 330 MW (90%) from 10:00 PM |

## 3.2 Monitoring locations

The noise limits administered for the Site apply to the nearby noise sensitive receiver locations outlined in Table 2.1, which are indicative of the nearest noise sensitive receivers to the project. Noise monitoring was generally conducted at these locations on adjacent publicly accessible land. However access to location R04 was no longer possible due to construction works and new residential land developments and two alternative locations were selected that are considered to be representative of the receiver location and nearby sensitive receivers.

The sensitive receivers and noise monitoring locations are detailed in Table 3.2 and shown in Appendix A.

*Table 3.2 Noise monitoring locations*

| Receiver location | Receiver address | Monitoring location | Distance from Site | Description of monitoring location |
|---|---|---|---|---|
| R01 | 103 Bishops Bridge Rd, Sawyers Gully | NM01 | 1000 m, SW | Publicly accessible land near the south-east corner boundary of the receiver. |
| R02 | 10 Dawes Ave, Loxford | NM02 | 820 m, SSE | Publicly accessible land near the north-west corner boundary of the receiver. |
| R03 | 20 Bowditch Ave, Loxford | NM03 | 1300 m, E | Publicly accessible land near the northern boundary of the receiver. |
| R04 | 464 Cessnock Rd, Gillieston Heights | NM04A | 4400 m, ENE | Receiver location is not accessible through public land due to extensive construction works. Initial measurement was taken on nearest accessible point along Cessnock Road. |
| | Corner of Cliften Avenue / Ridgeview Drive Cliftleigh | NM04B | 2700 m, E | Alternative representative location which is not heavily influenced by road traffic noise on Cessnock Road (NM04A). |
| R05 | 59 Sawyers Gully Rd, Sawyers Gully | NM05 | 1600 m, SW | Publicly accessible land near the north-east boundary of the receiver. |

## 3.3 Measurement methodology

Attended noise measurements were undertaken at the noise monitoring locations outlined in Table 3.2 to determine operational noise contribution generated from the Site to the existing environment. All measurements were performed in general accordance with EPL 21627, AS 1055 and the EPA's guideline for noise measurements.

The attended noise monitoring was undertaken using a NTi XL2 handheld sound level meter (S/N 17705). Calibration of the measurement equipment was carried out before and after the monitoring, and it was noted that the maximum variation was less than +/- 0.5 dBA during the monitoring period. All noise monitoring equipment carry current NATA-certified calibration certificates (which can be provided upon request) and are designed to comply with the relevant Australian Standards (AS) and International Electrotechnical Commission (IEC) standards for sound level meters and calibrators.

## 3.4 Weather conditions

Weather conditions during the monitoring program were obtained from an existing weather station on Site. The meteorological conditions during the evening and night time periods are summarised below:

- 26 July 2025: No rain and winds up to 2 m/s in the SW direction.
- 27 July 2025: No rain and winds up to 6 m/s in the WNW direction.
- 30 July 2025: Cumulative rain up to 4 mm (occasional showers) and winds up to 2.8 m/s in the WSW direction.
- 01 August 2025: No rain and winds up to 2.6 m/s in the WSW direction.
- 03 August 2025: Cumulative rain up to 1 mm (occasional light showers) and winds up to 2.8 m/s in the SSE/SSW direction.

The weather data recorded from the weather station are presented in Appendix B.

# 4. Noise monitoring results

Attended measurements were conducted at all receiver locations, including an alternative monitoring point for R04 (see Table 3.2). It was observed that the noise emissions from Site were intermittently audible over the background noise at locations NM02 and NM03, and generally inaudible at the other locations.

## 4.1 Existing noise environment

### 4.1.1 NM01

The noise environment was dominated by constant traffic from nearby busy roads – Hunter Expressway approximately 230 m to the north, Sawyers Gully Road 600 m to the south-west, and Hart Road 700m to the south-east. Other intermittent noise sources include fauna (birds and insects) and flora (tree leaves rustling).

Noise emissions from the Site were only audible during lulls in road traffic noise, for approximately 25 % of the night-time monitoring periods, when the background noise is lower.

### 4.1.2 NM02

The noise environment was dominated by distant traffic from Hunter Expressway approximately 500 m south. Other intermittent noise sources include fauna (birds, frogs and insects) and flora (tree leaves rustling).

Noise emissions from the Site were intermittently audible above the existing background noise throughout the program, for less than 50% of the night-time measurement periods.

### 4.1.3 NM03

The noise environment was dominated by distant traffic from Hunter Expressway approximately 1300 m south. Other intermittent noise sources include fauna (birds, frogs and insects) and flora (tree leaves rustling).

Noise emissions from the Site were only audible during lulls in road traffic noise, for approximately 50% of the night-time measurement periods, when the background noise is lower.

### 4.1.4 NM04B

The receiver location is inaccessible due to extensive construction works in the vicinity. An alternative location NM04B was selected from 01 August 2025 as a representative measurement point which is closer to the Site than the receiver location (see Appendix A).

The noise environment at NM04B was dominated by local traffic and distant traffic from Cessnock  Road 1000 m to the east. Other intermittent noise sources include fauna (birds, frogs and insects) and flora (tree leaves rustling).

Noise emissions from the Site were generally inaudible at this location.

### 4.1.5 NM05

The noise environment was dominated by traffic on the adjacent Sawyers Gully Road and distant traffic from Hunter Expressway approximately 900 m to the north. Other intermittent noise sources include fauna (birds, dogs and insects) and flora (tree leaves rustling).

Noise emissions from the Site were generally inaudible at this location.

## 4.2 Measurement results

Table 4.1 to Table 4.5 summarises the results of the attended measurements conducted for the noise monitoring program. Observations during monitoring program are described in Section 4.1 and noted in the result tables. These observations include description of typical noise sources and whether noise from the Site was audible at the receiver location at the time of the measurement. The noise environment at each receiver location was relatively consistent during monitoring program.

For all the measurements, the measured noise levels were generally dominated by other local environmental noise sources not originating from the Site. As such, noise contributions from the Site to the monitoring locations have been estimated where possible based on contribution relative to the measurement durations. In accordance with general acoustic principles, where the noise from the Site was noted to be inaudible, the contribution is estimated to be at least 10 dB less than the measurement levels.

*Table 4.1 Location NM01 – Noise measurement results*

| Monitoring location | Period | Date | Time of measurement | Measured noise level, dBA | | Estimated contribution | Noise criteria, dBA | Observations noted on site | Considered compliant |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $L_{eq,T}$ | $L_{Fmax}$ | dBA $L_{eq,T}$ | | | |
| NM01 | DAY | 1/08/2025 | 03:59 PM - 04:14 PM | 50 | 72 | < 40 | 50 $L_{eq,15min}$ | Site noise is inaudible. | YES |
| | EVENING | 26/07/2025 (1) | - | - | - | - | 48 $L_{eq,15min}$ | Site noise is inaudible. | YES |
| | | 27/07/2025 (1) | - | - | - | - | | Site noise is inaudible. | |
| | | 30/07/2025 | 07:26 PM - 07:41 PM | 44 | 64 | < 38 | | During periods where the background noise is lower, Site noise is intermittently audible for up to 25 % of the time. | |
| | | 1/08/2025 | 07:19 PM - 07:34 PM | 47 | 56 | < 37 | | Site noise is inaudible. | |
| | | 3/08/2025 | 07:28 PM - 07:31 PM | 50 | 57 | < 40 | | Site noise is inaudible. | |
| | NIGHT | 26/07/2025 (1) | - | - | - | - | 41 $L_{eq,15min}$; 52 $F_{lomax}$ | Site noise is inaudible. | YES |
| | | 27/07/2025 (1) | - | - | - | - | | Site noise is inaudible. | |
| | | 30/07/2025 | 10:21 PM - 10:36 PM | 38 | 55 | < 28 | | Site noise is inaudible. | |
| | | 1/08/2025 | 11:14 PM - 11:29 PM | 40 | 63 | < 30 | | During periods where the background noise is lower, Site noise is intermittently audible for up to 25 % of the time. | |
| | | 3/08/2025 | 11:52 PM - 12:05 AM | 42 | 59 | < 32 | | Site noise is inaudible. | |

1. Due to equipment failure, noise levels were not measured and recorded.

*Table 4.2 Location NM02 – Noise measurement results*

| Monitoring location | Period | Date | Time of measurement | Measured noise level, dBA | | Estimated contribution | Noise criteria, dBA | Observations noted on site | Considered compliant |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $L_{eq,T}$ | $L_{Fmax}$ | dBA $L_{eq,T}$ | | | |
| NM02 | DAY | 1/08/2025 | 04:45 PM - 05:00 PM | 47 | 65 | < 37 | 45 $L_{eq,15min}$ | Site noise is inaudible. | YES |
| | EVENING | 26/07/2025 (1) | - | - | - | - | 45 $L_{eq,15min}$ | Site noise is intermittently audible over the background noise for up to 25 % of the time. | YES |
| | | 27/07/2025 (1) | - | - | - | - | | Site noise is intermittently audible over the background noise for up to 25 % of the time. | |
| | | 30/07/2025 | 08:01 PM - 08:13 PM | 51 | 73 | < 41 | | Site noise is just audible over the background noise. | |
| | | 1/08/2025 | 08:12 PM - 08:27 PM | 45 | 53 | < 35 | | Site noise is just audible over the background noise. | |
| | | 3/08/2025 | 08:13 PM - 08:21 PM | 47 | 59 | < 41 | | Site noise is intermittently audible over the background noise for up to 25 % of the time. | |
| | NIGHT | 26/07/2025 (1) | - | - | - | - | 43 $L_{eq,15min}$; 53 $L_{Fmax}$ | Site noise is intermittently audible over the background noise for up to 25 % of the time. | YES |
| | | 27/07/2025 (1) | - | - | - | - | | Site noise is intermittently audible over the background noise for up to 50 % of the time. | |
| | | 30/07/2025 | 11:48 PM - 12:03 AM | 42 | 55 | < 39 | | Site noise is intermittently audible over the background noise for up to 50 % of the time. | |
| | | 1/08/2025 | 10:48 PM - 11:03 PM | 46 | 53 | < 36 | | Site noise is just audible over the background noise. | |
| | | 3/08/2025 | 11:00 PM - 11:16 PM | 47 | 62 | < 41 | | Site noise is intermittently audible over the background noise for up to 25 % of the time. | |

1. Due to equipment failure, noise levels were not measured and recorded.

*Table 4.3 Location NM03 – Noise measurement results*

| Monitoring location | Period | Date | Time of measurement | Measured noise level, dBA | | Estimated contribution | Noise criteria, dBA | Observations noted on site | Considered compliant |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $L_{eq,T}$ | $L_{Fmax}$ | dBA $L_{eq,T}$ | | | |
| NM03 | DAY | 1/08/2025 | 05:07 PM - 05:22 PM | 46 | 64 | < 36 | 43 $L_{eq,15min}$ | Site noise is inaudible. | YES |
| | EVENING | 26/07/2025 (1) | - | - | - | - | 43 $L_{eq,15min}$ | Site noise is inaudible. | YES |
| | | 27/07/2025 (1) | - | - | - | - | | Site noise is inaudible. | |
| | | 30/07/2025 | 08:31 PM - 08:40 PM | 46 | 58 | < 42 | | Site noise is intermittently audible over the background noise for up to 50 % of the time. | |
| | | 1/08/2025 | 08:35 PM - 08:50 PM | 42 | 56 | < 32 | | Site noise is just audible over the background noise. | |
| | | 3/08/2025 | 08:38 PM - 08:43 PM | 44 | 64 | < 34 | | Site noise is inaudible. | |
| | NIGHT | 26/07/2025 (1) | - | - | - | - | 38 $L_{eq,15min}$; 52 $L_{Fmax}$ | Site noise is inaudible. | YES |
| | | 27/07/2025 (1) | - | - | - | - | | Site noise is intermittently audible over the background noise for up to 50 % of the time. | |
| | | 30/07/2025 | 12:12 AM - 12:27 AM | 41 | 55 | < 35 | | Site noise is intermittently audible over the background noise for up to 25 % of the time. | |
| | | 1/08/2025 | 10:27 PM - 10:42 PM | 42 | 64 | < 32 | | Site noise is just audible over the background noise. | |
| | | 3/08/2025 | 10:36 PM - 10:51 PM | 47 | 64 | < 37 | | Site noise is inaudible. | |

1. Due to equipment failure, noise levels were not measured and recorded.

*Table 4.4 Location NM04B – Noise measurement results*

| Monitoring location | Period | Date | Time of measurement | Measured noise level, dBA | | Estimated contribution | Noise criteria, dBA | Observations noted on site | Considered compliant |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $L_{eq,T}$ | $L_{Fmax}$ | dBA $L_{eq,T}$ | | | |
| NM04B | DAY | 1/08/2025 | - | - | - | - | 40 $L_{eq,15min}$ | Site noise is inaudible. | YES |
| | EVENING | 26/07/2025 (1) | - | - | - | - | 35 $L_{eq,15min}$ | Site noise is inaudible. | YES |
| | | 27/07/2025 (1) | - | - | - | - | | Site noise is inaudible. | |
| | | 30/07/2025 | - | - | - | - | | Site noise is inaudible. | |
| | | 1/08/2025 (2) | 09:12 PM - 09:28 PM | 32 | 61 | < 22 | | Site noise is inaudible. | |
| | | 3/08/2025 (2) | 09:10 PM - 09:20 PM | 45 | 64 | < 35 | | Site noise is inaudible. | |
| | NIGHT | 26/07/2025 (1) | - | - | - | - | 35 $L_{eq,15min}$; 52 $L_{Fmax}$ | Site noise is inaudible. | YES |
| | | 27/07/2025 (1) | - | - | - | - | | Site noise is inaudible. | |
| | | 30/07/2025 | - | - | - | - | | Site noise is inaudible. | |
| | | 1/08/2025 (2) | 10:00 PM - 10:13 PM | 41 | 63 | < 31 | | Site noise is inaudible. | |
| | | 3/08/2025 (2) | 10:05 PM - 10:21 PM | 43 | 63 | < 33 | | Site noise is inaudible. | |

1. Due to equipment failure, noise levels were not measured and recorded.
2. The alternative location NM04B was monitored on 01 and 03 August 2025.

*Table 4.5 Location NM05 – Noise measurement results*

| Monitoring location | Period | Date | Time of measurement | Measured noise level, dBA | | Estimated contribution | Noise criteria, dBA | Observations noted on site | Considered compliant |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $L_{eq,T}$ | $L_{Fmax}$ | dBA $L_{eq,T}$ | | | |
| NM05 | DAY | 1/08/2025 | 04:22 PM - 04:37 PM | 67 | 81 | < 57 (2) | 42 $L_{eq,15min}$ | Site noise is inaudible. | YES |
| | EVENING | 26/07/2025 (1) | - | - | - | - | 42 $L_{eq,15min}$ | Site noise is inaudible. | YES |
| | | 27/07/2025 (1) | - | - | - | - | | Site noise is inaudible. | |
| | | 30/07/2025 | 09:30 PM - 09:44 PM | 58 | 83 | < 48 (2) | | Site noise is inaudible. | |
| | | 1/08/2025 | 07:43 PM - 07:58 PM | 58 | 82 | < 48 (2) | | Site noise is inaudible. | |
| | | 3/08/2025 | 07:44 PM - 08:00 PM | 51 | 73 | < 41 (2) | | Site noise is inaudible. | |
| | NIGHT | 26/07/2025 (1) | - | - | - | - | 38 $L_{eq,15min}$; 52 $L_{Fmax}$ | Site noise is inaudible. | YES |
| | | 27/07/2025 (1) | - | - | - | - | | Site noise is intermittently audible over the background noise for up to 25 % of the time. | |
| | | 30/07/2025 | 10:00 PM - 10:15 PM | 55 | 82 | < 45 (2) | | Site noise is inaudible. | |
| | | 1/08/2025 | 11:35 PM - 11:50 PM | 56 | 83 | < 46 (2) | | Site noise is inaudible. | |
| | | 3/08/2025 | 11:39 PM - 11:47 PM | 45 | 67 | < 35 | | Site noise is inaudible. | |

1. Due to equipment failure, noise levels were not measured and recorded.
2. Section 4.3 provides discussion on the compliance at this location.

## 4.3 Discussion

It was observed that the noise emissions from Site were intermittently audible over the background noise for locations NM02 and NM03, and generally inaudible at the other locations, at various operating load conditions. Ambient noise levels were generally dominated by road traffic noise from the Hunter Expressway and other local roads. The noise contribution from the Site was estimated based on the intermittent duration of Site noise where it was audible and the overall measured $L_{Aeq}$ level. Where Site noise was inaudible, the contribution was estimated to be at least 10 dB less than the measured level.

It is noted that during daytime and evening periods at location NM05, it was not possible to estimate the site contribution to less than 57dB and 48 dB, respectively. Whilst 57dB is greater than site criteria, reference to other time periods where background noise was lower and the site was inaudible would indicate that the Site contribution complied with criteria. Compliance was also demonstrated at NM01, which is closer to the Site than NM05 in the same bearing direction (see Appendix A).

For all measurement locations, the noise contributions from the Site are shown to comply with the noise criteria.

# 5. Conclusion

WSP Australia Pty Ltd has been engaged by Snowy Hydro Limited to examine the noise emissions from the gas-fired operations of the Hunter Power Project (HPP) power station located at Hart Road, Loxford, and its noise impacts at the nearest most-potentially affected receiver locations. The noise impacts were assessed against the noise requirement established in the conditions of the Site's EPL 21627 and Infrastructure Approval.

Noise monitoring was conducted over five evening and night periods, while the power station operated under various load conditions. It was noted that the Site noise was intermittently audible over the background noise at the nearest locations NM01, NM02 and NM03 which are approximately 1000m, 800 m and 1300m away, respectively. For the other receiver locations, the Site noise was noted to be generally inaudible over the existing noise environment.

The monitoring has found that noise emissions from the Site are considered compliant with the noise requirements based on the following:

- The noise environment at most receiver locations was dominated by extraneous noise sources not related to the Site (primarily road traffic noise on nearby busy roads).
- Noise contributions from site were estimated based on intermittent durations when and where they were audible.
- The Site was inaudible during all time periods at locations NM04 and NM05 and is considered compliant.

# Appendix A Site area, sensitive receivers and noise monitoring locations


| | |
|---|---|
| Appendix A | Author: RV |
| Date: 15/08/2025 | Approved by: BI |

0 250 500 750 1,000 m

1:25,000 at A4

**Legend**

- Site boundary
- Receiver locations
- Noise monitoring locations

**Noise compliance Assessment**
**HEZ Power Station**

Project study area, sensitive receivers, and noise monitoring locations

To be read in conjunction with WSP document: **PS227195-WSP-SYD-ACO-MEM-01**

## Appendix B Recorded weather data

| Date | Time | Cumulative precipitation, mm | Average wind speed, m/s | Average wind direction |
|---|---|---|---|---|
| 26-Jul | 5 PM - 6 PM | 2.2 | 1.5 | ENE |
| | 6 PM - 7 PM | 2.2 | 0.9 | SSW |
| | 7 PM - 8 PM | 2.2 | 0.6 | WSW |
| | 8 PM - 9 PM | 2.2 | 1.1 | WSW |
| | 9 PM - 10 PM | 2.2 | 1.8 | W |
| | 10 PM - 11 PM | 2.2 | 1.1 | WSW |
| | 11 PM - 12 AM | 2.2 | 0.7 | S |
| 27-Jul | 12 AM - 1 AM | 0.0 | 0.5 | S |
| | 1 AM - 5 PM | 0.0 | 3.4 | NW |
| | 5 PM - 6 PM | 6.8 | 5.6 | WNW |
| | 6 PM - 7 PM | 6.8 | 4.8 | WNW |
| | 7 PM - 8 PM | 6.8 | 5.2 | WNW |
| | 8 PM - 9 PM | 6.8 | 5.8 | WNW |
| | 9 PM - 10 PM | 6.8 | 6.0 | WNW |
| | 10 PM - 11 PM | 6.8 | 4.7 | WNW |
| | 11 PM - 12 AM | 6.8 | 4.4 | WNW |
| 30-Jul | 12 AM - 1 AM | 0.0 | 0.7 | SW |
| | 1 AM - 5 PM | 0.0 | 0.8 | W |
| | 5 PM - 6 PM | 0.4 | 2.0 | WSW |
| | 6 PM - 7 PM | 0.4 | 2.3 | WSW |
| | 7 PM - 8 PM | 0.5 | 2.4 | WSW |
| | 8 PM - 9 PM | 1.0 | 2.0 | WSW |
| | 9 PM - 10 PM | 2.2 | 1.7 | SW |
| | 10 PM - 11 PM | 2.7 | 1.5 | SW |
| | 11 PM - 12 AM | 4.2 | 2.8 | SSW |
| 1-Aug | 12 AM - 1 AM | 0.0 | 2.2 | WSW |
| | 1 AM - 5 PM | 0.0 | 2.3 | WSW |
| | 5 PM - 6 PM | 0.0 | 3.4 | S |
| | 6 PM - 7 PM | 0.0 | 2.6 | S |
| | 7 PM - 8 PM | 0.0 | 1.3 | SW |
| | 8 PM - 9 PM | 0.0 | 0.8 | W |

| Date | Time | Cumulative precipitation, mm | Average wind speed, m/s | Average wind direction |
|---|---|---|---|---|
| | 9 PM - 10 PM | 0.0 | 0.8 | WSW |
| | 10 PM - 11 PM | 0.0 | 0.9 | WSW |
| | 11 PM - 12 AM | 0.0 | 1.2 | SW |
| 3-Aug | 12 AM - 1 AM | 2.5 | 6.4 | SSE |
| | 1 AM - 5 PM | 6.8 | 6.2 | SSE |
| | 5 PM - 6 PM | 49.0 | 2.6 | S |
| | 6 PM - 7 PM | 49.2 | 3.0 | SSE |
| | 7 PM - 8 PM | 49.4 | 2.1 | SSE |
| | 8 PM - 9 PM | 49.4 | 1.2 | SSW |
| | 9 PM - 10 PM | 49.6 | 1.5 | SSW |
| | 10 PM - 11 PM | 49.7 | 1.9 | S |
| | 11 PM - 12 AM | 50.0 | 1.5 | S |
| 4-Aug | 12 AM - 1 AM | 0.0 | 2.1 | SSE |