



ENVIRONMENT PROTECTION LICENCE NO: 21029

May 2020 Monthly Report

FOR

**Princes Highway Upgrade
between Berry and Bomaderry**

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Approved by:



Greg Anderson

Downer Seymour Whyte
Project Director



Jacqueline McKenzie

Downer Seymour Whyte
Environmental Site
Representative

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2 NON-COMPLIANCES

No non-compliances occurred against EPL conditions during the month of May.

3 RAINFALL AND WEATHER

The RMS automatic weather station is situated at Ison Lane, Jaspers Brush, located adjacent to the project's main ancillary compound (Ison Lane Compound) for the project. The results of rainfall monitoring for May 2020 are provided in Table 3-1 and Figure 3-1 below.

Table 3-1 May 2020 Rainfall monitoring results

Location	Monthly rainfall recorded (mm)
Ison Lane, Jaspers Brush (RMS automatic weather station)	73.8

May experienced a total of 73.8mm rainfall recorded at the project specific weather station at Ison Lane, Jaspers Brush (RMS automatic weather station). The weather during May was wetter than average as the long-term mean expected rainfall is 47.6 mm for May as taken from the Nowra RAN Air Station Bureau of Meteorology Weather Station (Station Number 068076).

From May 22 to May 26 (5 days), 50.0mm of rainfall fell exceeding the design 5 day rainfall event specified in condition L2.5 of the EPL of 48.2mm.

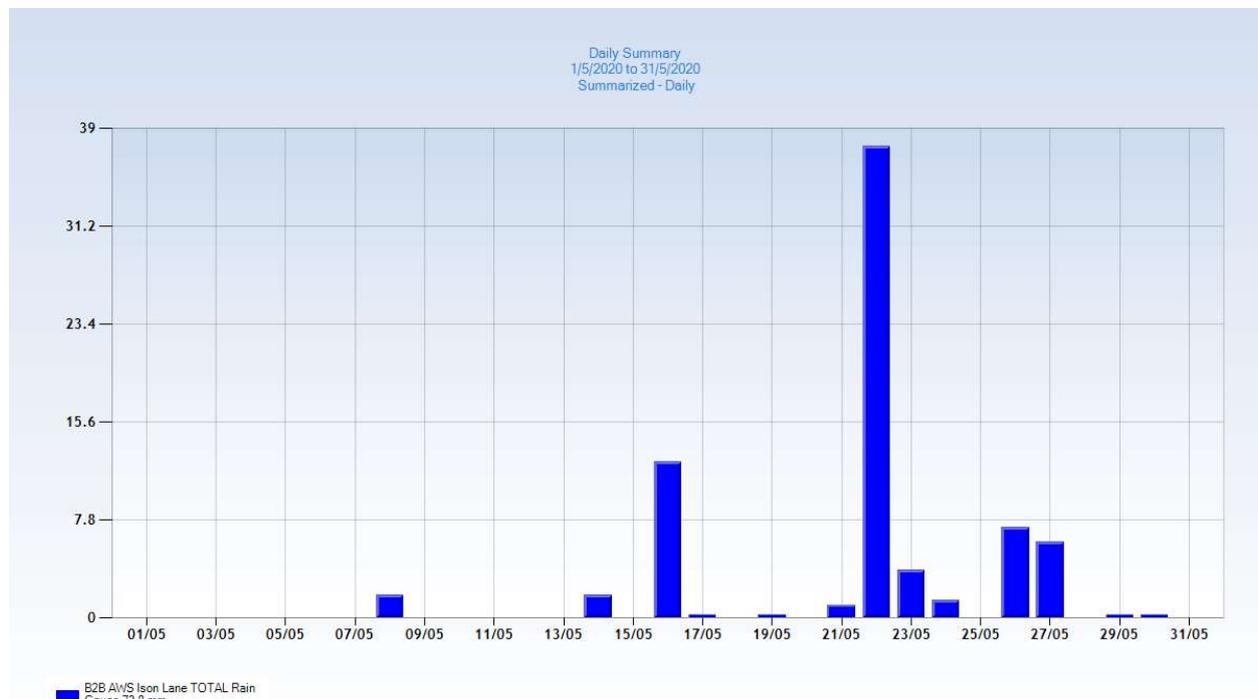


Figure 3-1 May Rainfall Results from Ison Compound Weather Station

Mild conditions prevailed during May with several days experiencing high wind speeds. The predominant wind direction for May was from the WSW. The highest wind gust recorded was 87.6 km/h and the maximum wind speed was 50.1 km/h (refer Figure 3-2). DSWJV continue to monitor site activities, implement dust suppressant across site, utilise a fleet of water carts during working hours and limit dust generating activities and/or suspend work activities on days of high wind.

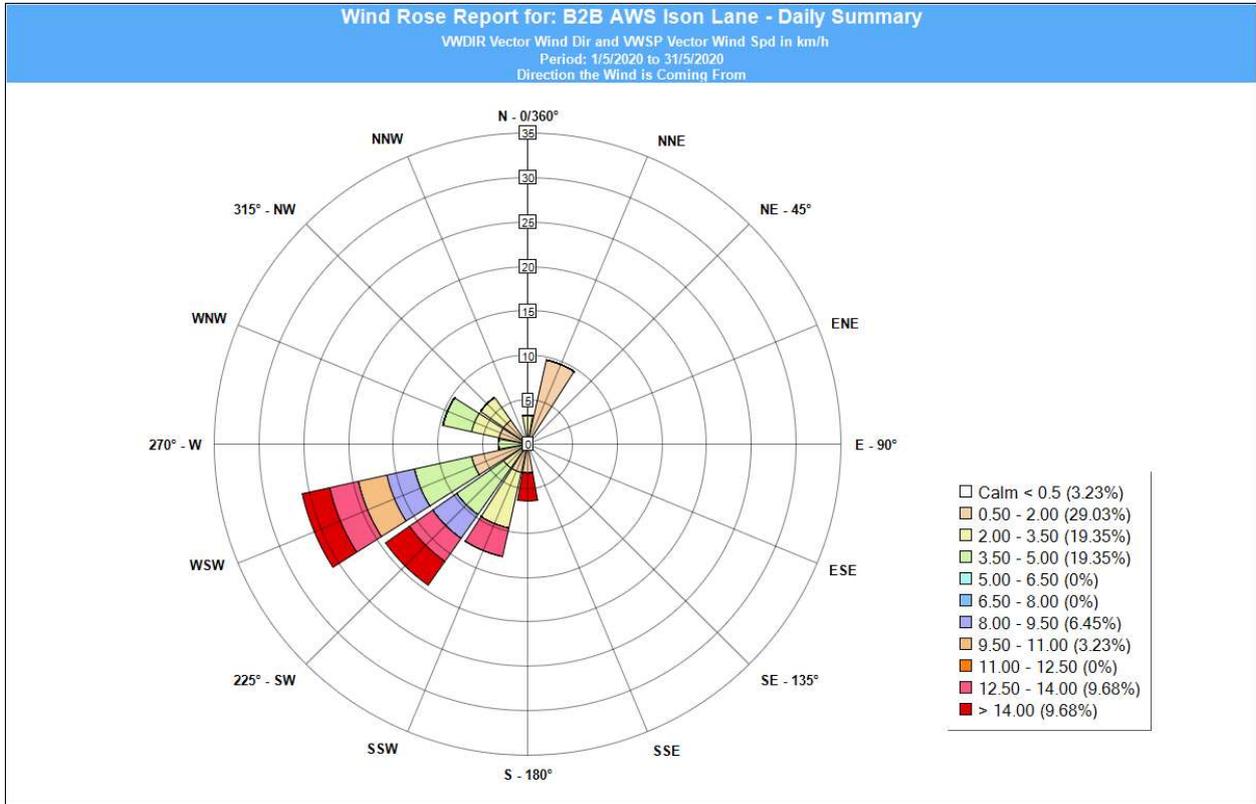


Figure 3-2 May 2020 Wind Rose Results from Ison Lane Compound Weather Station. Average Wind direction and Average Wind Speed shown.

4 SEDIMENT BASIN DISCHARGE

Sixteen sediment basins and one discharge point were licensed under the EPL during May 2020.

On the 20th of June in accordance with licence condition L2.6, DSWJV began to use a statistical correlation for the calculation of TSS (mg/L) from Turbidity (NTU). The correlation uses the formula of $TSS (mg/L) = 0.43 * (NTU) + 1.00$. Given that the threshold value for TSS is 50mg/l, samples if less than 114 NTU would be deemed suitable for discharge. For a factor of safety, the acceptable discharge limit was reduced to 90 NTU.

See Table 4.1 below for details on sediment basin discharges.

Table 4-1 May 2020 Sediment basin discharge(s)

EPA Identification No.	Location (adjacent address)	Discharge Date	pH (6.5-8.5)	Nephelometric Turbidity Units (<90NTU)	Oil and Grease (none visible)
PB19.82.S	Mullers Lane	06/05/20	7	50	None visible
		28/05/20	7	70	None visible
PB24.45.N	B660 Princes Highway	27/05/20	8	40	None visible
TB21.15.N	Opposite O'Keefes Lane	No discharges in May 2020			
TB21.50.N	Opposite Jaspers Brush Road	28/05/20	7.5	60	None visible
TB21.70.S	Intersection at Jaspers Brush Road	27/05/20	7	30	None visible
TB21.90.S	Jaspers Brush Ancillary Site	25/05/20	7	20	None visible
TB22.10.N	Strongs Road	No discharges in May 2020			
TB22.25S	Opposite Strongs Road	19/05/20	7.5	40	None visible
TB22.30.N	South of Strongs Road	No discharges in May 2020			
TB22.65.S	Opposite Ison Lane	06/05/20	7	60	None visible
		27/05/20	7	40	None visible
TB22.65N	North of Ison Lane	25/05/20	7.5	20	None visible
		29/05/20	7	20	None visible
TB22.80.N	Ison Compound	01/05/20	7	10	None visible
TB23.60N	South of Ison Lane	27/05/20	7.5	50	None visible
TB25.10.N	Devitts Lane	04/05/20	8	20	None visible
TB26.15S	North of Tandingulla Creek	28/05/20	7.5	60	None visible
TB28.90.N	Abernethy's Lane	04/05/20	7	60	None visible
		30/05/20	7	40	None visible
CH27.81N	Pestells Lane	No discharges in May 2020			

5 AIR MONITORING RESULTS

Dust deposition gauges for the project were installed on 17 April 2020 and changed on 19 May 2020 for a total of 32 days of deployment, ie within the NATA accredited window (30 days +/- 2 days), according to the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (EPA, 2016).

There were no exceedances of the monthly target of 4g/m²/month at any monitoring locations during the month of May, all monitoring points also remain below the rolling average of the annual criteria.

Table 5-1 May 2020 Air quality monitoring results

EPA Identification No.	Location (adjacent address)	Ash Content g/m ² ,month	Combustible Matter g/m ² ,month	Total Insoluble Matter g/m ² ,month	Rolling Average (Total Insoluble Matter) g/m ² ,month
1-DDG A	10 Croziers Lane, Jaspers Brush	0.6	0.3	0.8	3.9
2-DDG B	10A Jaspers Brush Road, Jaspers Brush	1.9	0.3	2.2	2.7
3-DDG C	20C Strongs Road, Jaspers Brush	1.0	<0.1	1.0	2.3
4-DDG D	10C Jaspers Brush Road, Jaspers Brush	1.2	0.2	1.4	3.2
5-DDG E	30 Ison Lane, Jaspers Brush	0.3	<0.1	0.3	1.0
6-DDG F	Lot 209 DP 1210788	1.4	0.1	1.5	2.1
7-DDG H	10 Lamonds Lane, Meroo Meadow	0.9	0.3	1.2	2.8
8-DDG I	19 Boxsells Lane, Meroo Meadow	0.4	0.1	0.5	1.7
9-DDG J/K	265 Princes Highway, Meroo Meadow	0.8	0.7	1.5	3.0
10-DDG L	1028 Meroo Meadow, Meroo Meadow	1.1	0.2	1.3	3.4
11-DDG M	32 Elvin Drive, Bomaderry	1.0	0.8	1.8	3.1
12-DDG N	9 Devitt's Lane, Meroo Meadow	0.9	0.1	1.0	1.8
13-DDG P	24 Abernethys Lane, Meroo Meadow	0.8	0.4	1.2	1.7

Note: bold type indicates a result above the relevant criteria

Figure 5-1 provides air quality data from the nearest OEH ambient air quality monitoring stations to the project (Wollongong, Kembla Grange and Albion Park, approximately 25 km north of the project area). Generally regional air quality was good or very good for the month of May with several days of fair conditions.

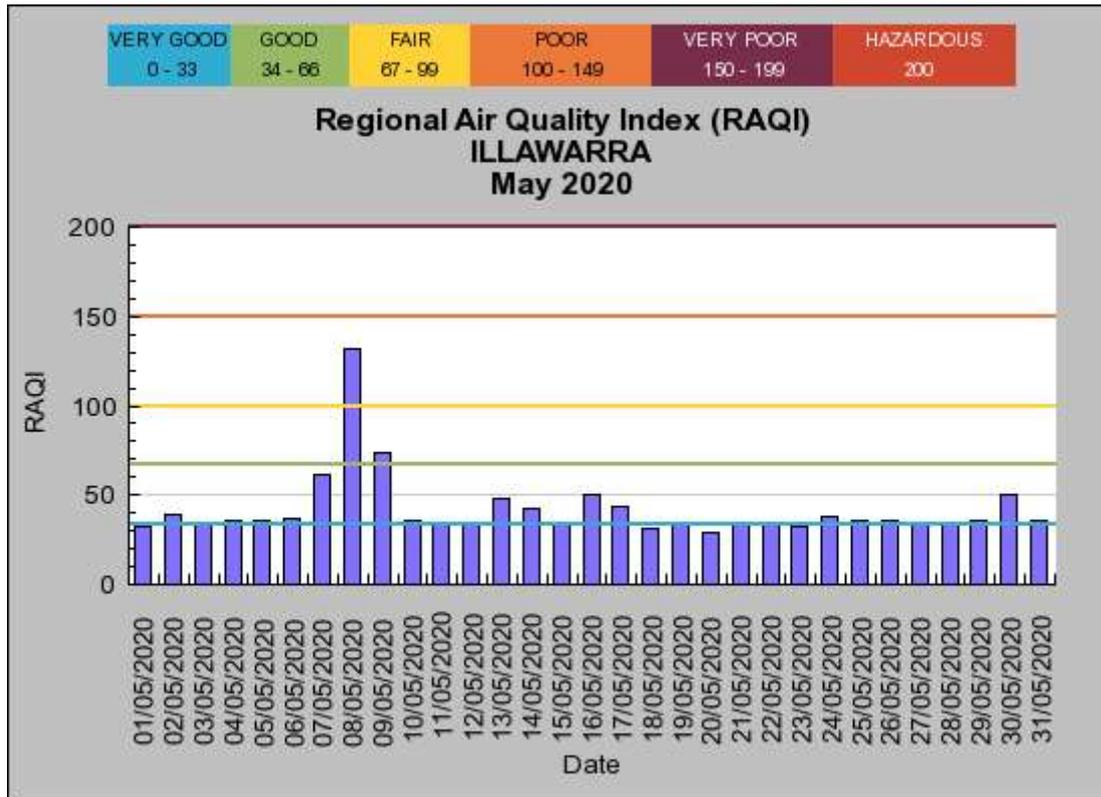


Figure 5-1: Regional Air Quality Index for May from the nearest OEH air quality monitoring stations – Illawarra (NSW OEH).

6 NOISE MONITORING RESULTS

Noise monitoring was undertaken in accordance with the Construction Noise and Vibration Management Plan (CNVMP) for the project in May 2020. No exceedances above predicted levels for the relevant activity were recorded.

Table 6-1 below summarises the attended noise monitoring undertaken in May 2020.

Table 6-1 May 2020 Noise Monitoring Results

EPA ID No.	Location description	Construction activity	Date	Time	L(A)eq 15min	Comments
15	L1 - B210 Princes Highway, Jaspers	Earthworks	29/5/20	13:21	59.2	<ul style="list-style-type: none"> Traffic from Princes Highway the dominant noise source. Multiple heavy vehicle movements as trucks exited the highway and entered the construction site via Croziers Road.
16	L2 - 20C Strongs Road, Jaspers Brush	Rock crushing, screening and hammering	29/5/20	12:56	62.7	<ul style="list-style-type: none"> Constant traffic from Princes Highway the main noise source. Intermittent hammering from excavator, reversing beeper from trucks in work area on opposite side of the highway.

EPA ID No.	Location description	Construction activity	Date	Time	L(A) _{eq} 15min	Comments
17	L3 - 30 Ison Lane, Jaspers Brush	Furnishings	30/5/20	12:25	52.4	<ul style="list-style-type: none"> Traffic from Princes Highway the dominant noise source. Some intermittent construction sounds (e.g. truck and dog trailer banging, reversing squawker)
18	L5 - 15 Turner Lane, Jaspers Brush	Bridgeworks/ Earthworks	28/5/20	7:25	61.8	<ul style="list-style-type: none"> Constant traffic from the Princes Highway the dominant noise source. Several cars passing on Turners Lane. <p>Workers observed on Wileys Creek Bridge, several heavy vehicles exiting site onto the highway opposite Turners Lane.</p>
19	L6 - B710 Princes Highway, Jaspers Brush	Drainage	29/5/20	13:05	61.0	<ul style="list-style-type: none"> Excavator digging batter drain from Devitts Lane bridge the dominant noise source.
20	L7 - 310C Princes Highway, Jaspers Brush	No construction works within the vicinity	29/5/20	14:27	58.8	<ul style="list-style-type: none"> Princes Highway traffic the main noise source
21	BG08 - 19 Boxsells Lane, Meroo Meadow	Drainage	29/5/20	13:33	64.3	<ul style="list-style-type: none"> Princes Highway traffic the dominant noise source. Excavator digging drainage line.
22	BG09 - 1028 Meroo Road, Meroo Meadow	Bridgeworks	29/5/20	14:46	56.7	<ul style="list-style-type: none"> Princes Highway traffic the main noise source. Truck turning in Meroo Road work area.
23	L8 - 24 Abernethys Lane, Meroo Meadow	Earthworks	29/5/20	11:55	60.8	<ul style="list-style-type: none"> Import of material into the area, truck and dogs tipping and grader spreading material.
24	BG10 - 35 Gardenia Crescent, Bomaderry	No construction works within the vicinity	29/5/20	14:08	46.0	<ul style="list-style-type: none"> Quiet residential street, distant hum of highway traffic.
25	BG11 - 38 Elvin Drive, Bomaderry	No construction works within the vicinity	29/5/20	11:29	64.5	<ul style="list-style-type: none"> Princes Highway traffic the main noise source

7 ENVIRONMENTAL COMPLAINTS

Complaint Details	Required timeframe for response (G36)	Date / time complaint received	Actions & date completed	Status / timing
<p>Resident on Lamonds Lane.</p> <p>Complaint resulted from the noise of a reversing beeper on a water cart filling up from a hydrant on a Sunday.</p>	<p>24 hours – response (email)</p> <p>5 days resolution</p>	<p>10/5/20 – 12:20PM</p>	<p>The activity was covered under an approved OOHW permit however the need for reversing in the location had not been considered.</p> <p>On receiving the complaint, the water cart was instructed to cease use of the filling location.</p>	<p>Addressed within 24 hours</p>