



ENVIRONMENT PROTECTION LICENCE NO: 21029

June 2019 Monthly Report

FOR

**Princes Highway Upgrade
between Berry and Bomaderry**

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1 INTRODUCTION

The Downer Seymour Whyte Joint Venture (DSWJV) is contracted by Roads and Maritime Services (Roads and Maritime) to upgrade 10.3 kilometres of the Princes Highway between Mullers Lane (south of Berry) and Cambewarra Road, Bomaderry in New South Wales (NSW) (the Project). The project will provide a four-lane divided highway (two lanes in each direction) with median separation.

The project is one of a series of upgrades to sections of the Princes Highway which aims to provide a four-lane divided highway between Waterfall and Jervis Bay Road, Falls Creek. This would improve road safety and traffic efficiency, including for freight, on the NSW South Coast.

Figure 1 provides an overview of the project location.

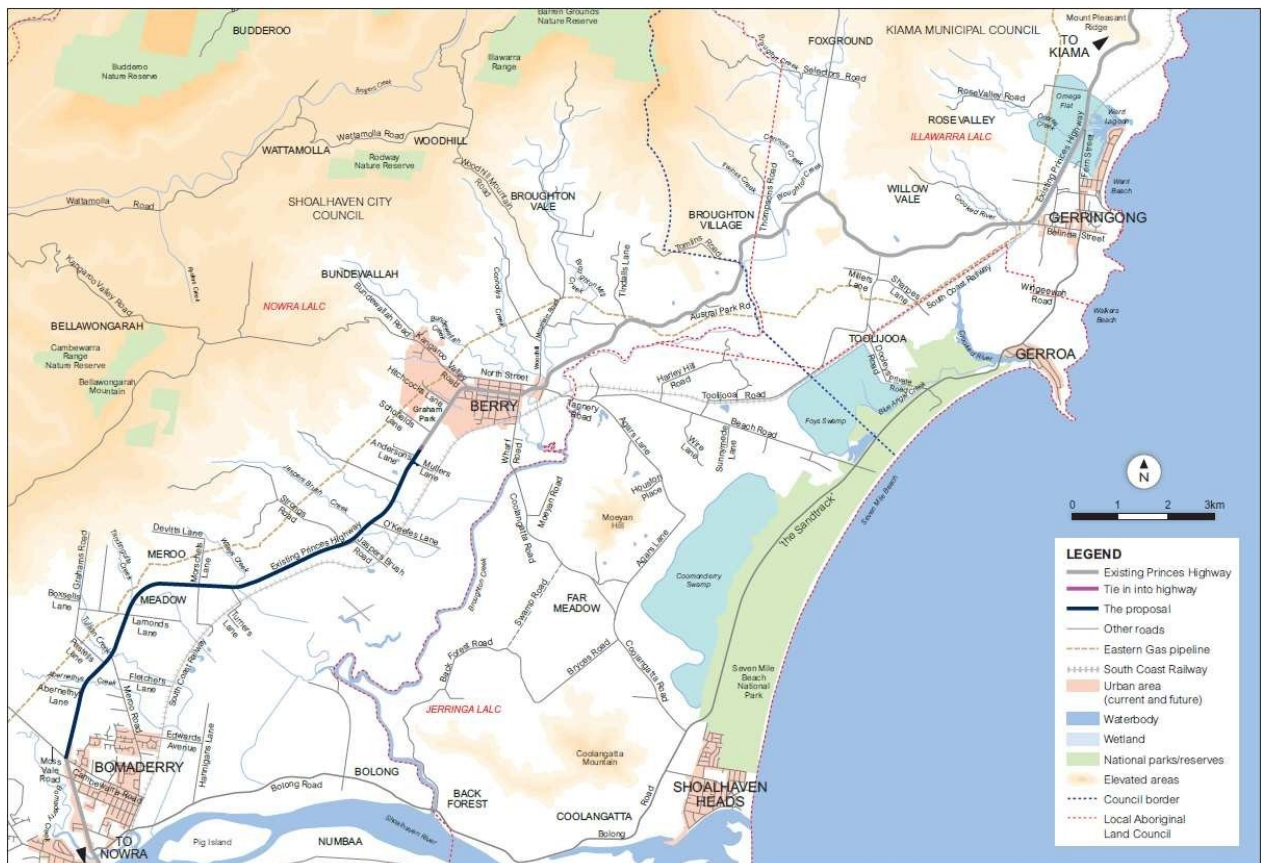


Figure 1-1 Project location

This report provides the results of monitoring undertaken during June 2019 as required by the project’s Environment Protection Licence (EPL 21029) Condition R4.1.

2 NON-COMPLIANCES

Earthworks continued past standard operating hours specified by condition of L4.1 of the EPL. Works were undertaken until 3pm on Saturday the 1st June past standard hours of 8am to 1pm. The same works had been undertaken with agreement from nearby residents in accordance with licence condition L4.4 on the previous 3 Saturdays with an approved internal out of hours permit. No complaints were received from the community as a result of the incident.

3 RAINFALL AND WEATHER

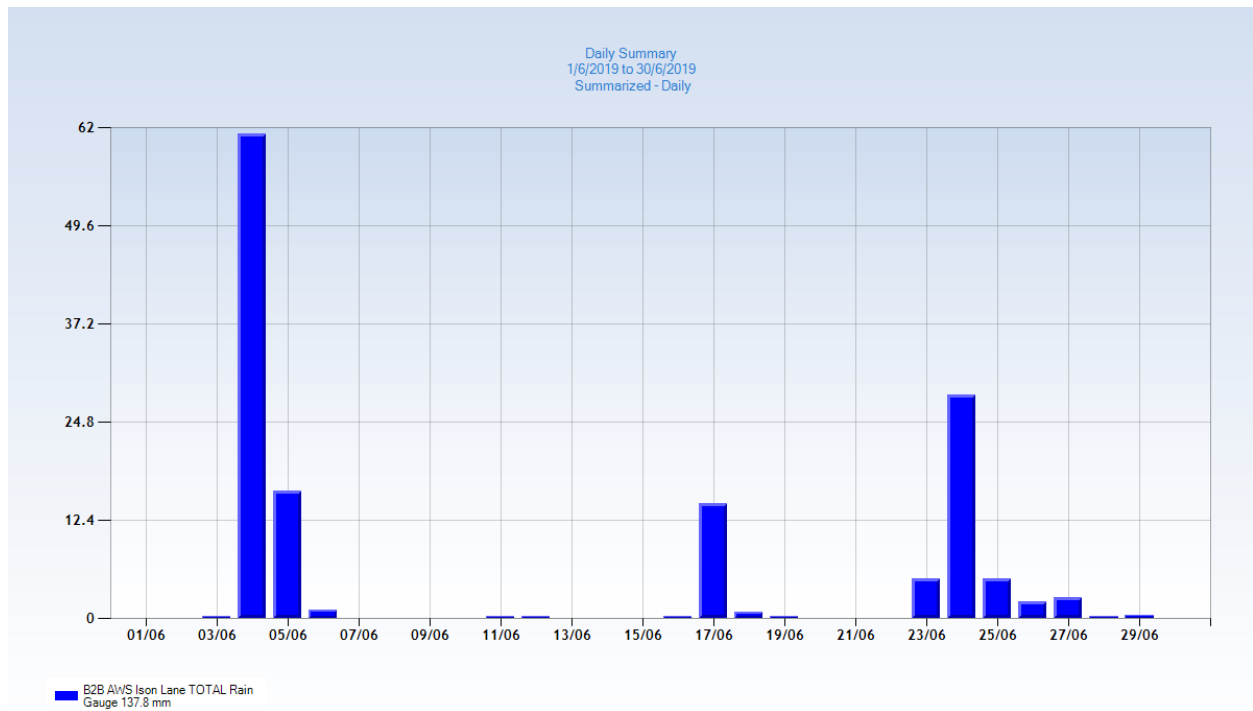
The RMS automatic weather station is situated at Ison Lane, Jaspers Brush, located adjacent to the project’s main ancillary compound (Ison Lane Compound) for the project. The results of rainfall monitoring for June 2019 are provided in Figure 3-1 and Figure 3-2 below.

Figure 3-1 June 2019 Rainfall monitoring results

Location	Monthly rainfall recorded (mm)
Ison Lane, Jaspers Brush (RMS automatic weather station)	137.8mm

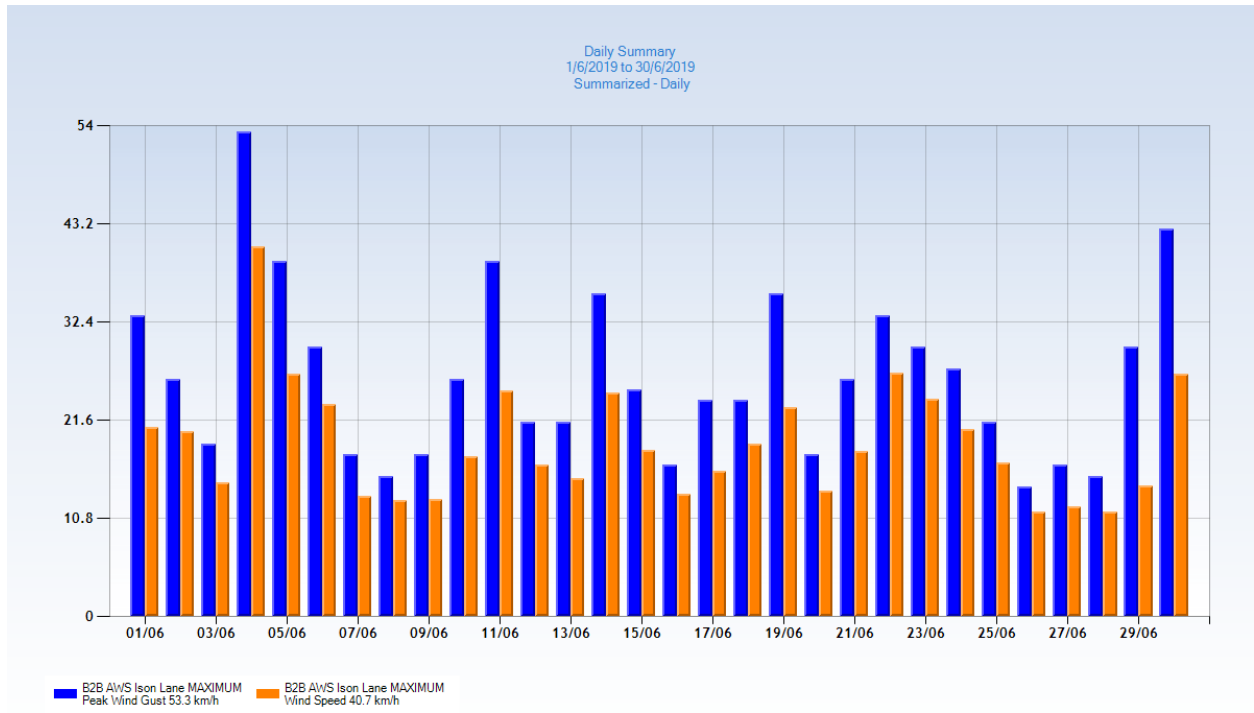
In line with climate statistics for the area June was quite wet month with 137.8mm of rainfall recorded at the project specific weather station at Ison Lane, Jaspers Brush (RMS automatic weather station). There were three periods of rainfall in June with the largest event ending on the 5th June with 88mm falling over two days. This rainfall event exceeded the projects 5 day design rainfall capacity of 48.2mm and the volume of water resulted in some controls and sediment basins being overtopped, in accordance with licence condition L2.5.

Figure 3-2 June Rainfall Results Ison Compound Weather Station



The predominant wind for June was from the southwest. The highest wind gust recorded was 53.3 km/h and maximum wind speed was 40.7 km/h (refer Figure 3-3). 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 on days of high wind.

Figure 3-3 June 2019 Wind Results Isons Compound Weather Station



4 SEDIMENT BASIN DISCHARGE

Eighteen sediment basins were licensed under the EPL during June 2019. The list of basins is provided in Table 4-1 below. No sediment basins were commissioned during the month.

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 $TSS (mg/L) = 0.43 * (NTU) + 1.00$. The values of TSS modelled using this formula have been noted in the table below. DSWJV will continue to collect data from one in every ten discharges to verify the statistical relationship and will notify EPA of any required amendments.

Table 4-1 June 2019 Sediment basin discharge(s)

EPA Identification No.	Location (adjacent address)	Discharge Date	pH (6.5-8.5)	Total Suspended Solids (<50mg/L)	Oil and Grease (none visible)
PB19820.S	Mullers Lane	14/06/19	7.24	18	None visible
TB21150.S	Opposite O'Keeffe's Lane	11/06/19	7.14	15	None visible
		12/06/19	7.56	17	None visible
		13/06/19	6.95	18	None visible
		14/06/19	7.36	18	None visible
TB21500.N	Opposite Jaspers Brush Road	03/06/19	8.48	5	None visible
		11/06/19	6.99	15	None visible
		24/06/19	6.53	38	None visible
TB21700.S	Intersection at Jaspers Brush Road	12/06/19	7.15	6	None visible
TB21900.S	Jaspers Brush Road Compound	11/06/19	6.88	21	None visible
		14/06/19	7.18	16	None visible
TB22100.N	Strong's Road	06/06/19	7.20	40	None visible
		28/06/19	6.82	31	None visible
TB22250.S	Opposite Strong's Road	No discharges during June 2019			
TB22650.S	Opposite Isons Compound	06/06/19	7.00	6	None visible
		26/06/19	7.02	6	None visible
TB22800.N	Ison Compound	03/06/19	7.67	7	None visible
		05/06/19	6.55	30	None visible
		06/06/19	6.55	30	None visible
		26/06/19	7.10	26	None visible
TB23400.S	Jaspers Brush North of Wileys Creek	04/06/19	7.69	5	None visible
		05/06/19	7.17	9	None visible
		07/06/19	7.22	7	None visible
		24/06/19	7.02	20	None visible
TB23450.S	Jaspers Brush North of Wileys Creek	04/06/19	7.59	6	None visible
		05/06/19	7.22	7	None visible
		07/06/19	7.17	9	None visible
		26/06/19	7.42	21	None visible

TB23800.S	Wileys side track compound	05/06/19	7.23	17	None visible
PB24.45.N	South of Wileys Creek	11/06/19	6.69	3	None visible
TB25100.N	Devitts Lane	21/06/19	6.6	4	None visible
		27/06/19	6.85	17	None visible
TB25700.N	South of Devitts Lane	11/06/19	6.95	9	None visible
TB25750.N	South of Devitts Lane	No discharges during June 2019			
TB26150.S	North of Tandingulla Creek	27/06/19	7.7	18	None visible
TB28900.N	Abernethy's Lane	11/06/19	7.3	22	None visible
		24/06/19	7.61	35	None visible
		25/06/19	7.38	8	None visible

***Lab results for Total Suspended Solids limit of reporting = 5 mg/L**

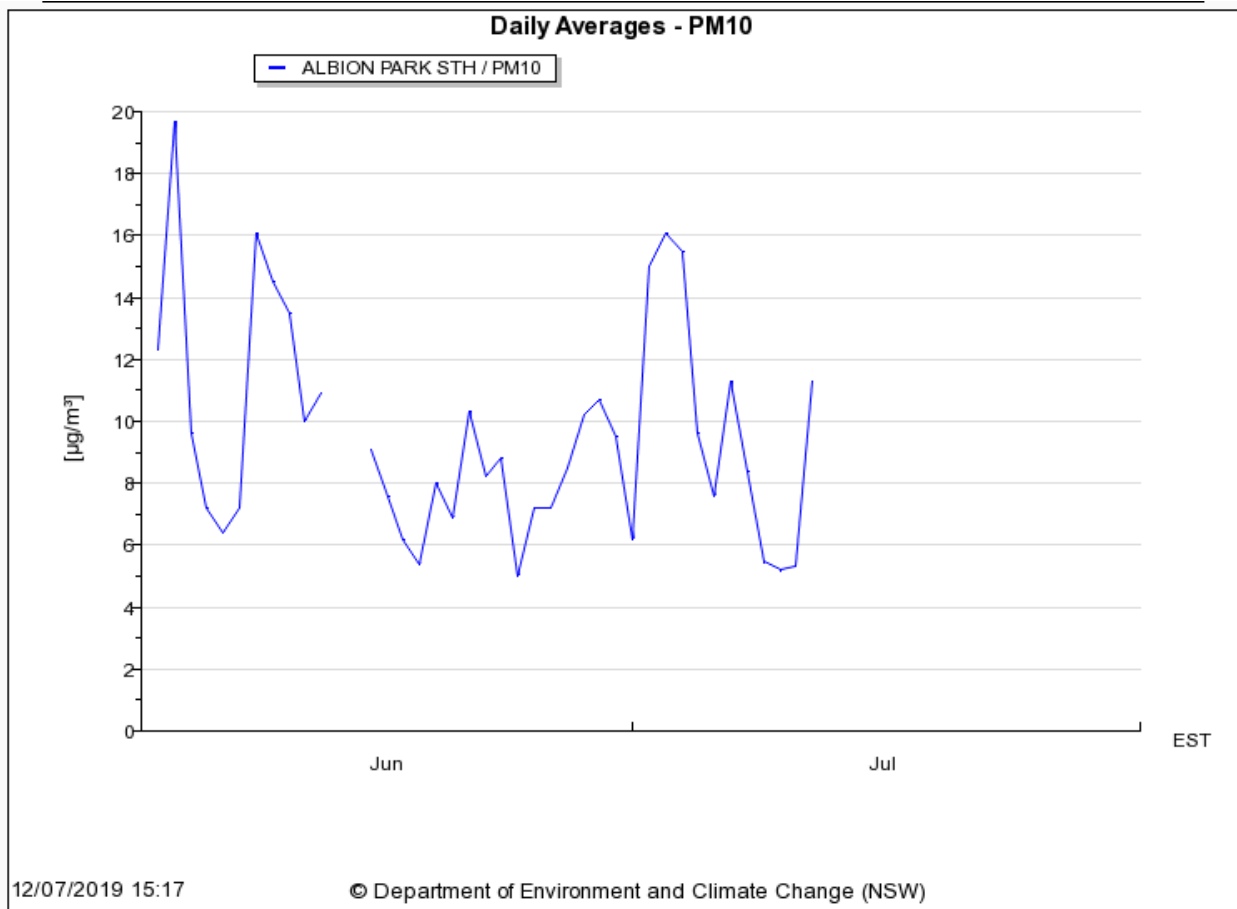
^TSS (mg/L) modelled from Turbidity (NTU) based on approved correlation formula of $TSS = 0.43*(NTU) + 1.00$

5 AIR MONITORING RESULTS

Dust deposition gauges for the project were installed on 31 May 2019 and changed on 28 June 2019 within the NATA accredited window (30 days +/- 2 days). Air quality has been assessed according to the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (EPA, 2016). Results are summarised in Table 5-1 below.

Figure 5-1 provides air quality data at the nearest OEH ambient air quality monitoring station to the project (Albion Park, approximately 25 km north of the project area).

Figure 5-1 - Daily Average PM10 levels at Albion Park South NSW Air Quality Monitoring Station, courtesy of NSW Office of Environment and Heritage



There were no exceedances of the threshold value of 4 g/m² per month for deposited dust based on the criteria for annual rolling average at any of the thirteen monitoring points in the project area.

Table 5-1 June 2019 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	0.3	0.4	0.7	2.7
2-DDG B	10A Jaspers Brush Road, Jaspers Brush	0.7	0.3	1.0	2.3
3-DDG C	20C Strongs Road, Jaspers Brush	0.9	0.4	1.3	2.8
4-DDG D	10C Jaspers Brush Road, Jaspers Brush	1.0	0.3	1.3	2.6
5-DDG E	30 Ison Lane, Jaspers Brush	0.2	0.4	0.6	1.2
6-DDG F	Lot 209 DP 1210788	0.7	0.3	1.0	2.9
7-DDG H	10 Lamonds Lane, Meroo Meadow	1.9	0.2	2.1	3.8
8-DDG I	19 Boxsells Lane, Meroo Meadow	0.4	0.2	0.6	1.5
9-DDG J/K	265 Princes Highway, Meroo Meadow	0.8	3.1	3.9	3.7
10-DDG L	1028 Meroo Meadow, Meroo Meadow	1.2	0.2	2.1	3.0
11-DDG M	32 Elvin Drive, Bomaderry	0.4	0.1	0.5	2.0
12-DDG N	9 Devitt's Lane, Meroo Meadow	0.8	0.4	1.2	1.8
13-DDG P	24 Abernethys Lane, Meroo Meadow	0.7	0.5	1.2	3.0

Note: bold type indicates a result above the relevant criteria

6 NOISE MONITORING RESULTS

Noise monitoring was undertaken in accordance with the Construction Noise and Vibration Management Plan (CNVMP) for the project in June 2019. No exceedances above predicted levels for the relevant activity were recorded.

Table 6-1 June 2019 Noise Monitoring Results

EPA ID No.	Location description	Construction activity	Date	Time	L(A) _{eq} 15min	Comments
15	L1 - B210 Princes Highway, Jaspers	Construction works not audible	26/06/19	9:40 9:55	59.2	No construction noise audible – Princes Highway dominant noise source
16	L2 - 20C Strongs Road, Jaspers Brush	Earthworks Bridgeworks	26/06/19	9:08 9:23	64.8	Abutment A at Strongs Road Backfill in progress - Princes Highway dominant noise source
17	L3 - 30 Ison Lane, Jaspers Brush	Earthworks Compound Operation	26/06/19	8:43 8:58	53.8	Heavy Bound Placement underway Grader operating 200m away on other side of Princes Highway Truck and dogs delivering to site - Princes Highway dominant noise source
18	L5 - 15 Turner Lane, Jaspers Brush	Construction works not audible	26/06/19	10:07 10:22	58.7	No construction noise audible
19	L6 - B710 Princes Highway, Jaspers Brush	Construction works not audible	26/06/19	13:57 14:12	59.6	No construction noise audible
20	L7 - 310C Princes Highway, Jaspers Brush	Construction works not audible	26/06/19	10:45 11:00	71.6	No construction noise audible
21	BG08 - 19 Boxsells Lane, Meroo Meadow	Construction works not audible	26/06/19	13:39 13:24	52.3	No construction noise audible
22	BG09 - 1028 Meroo Road, Meroo Meadow	Bridgeworks	26/06/19	11:16 11:31	57.4	Scaffolding and formwork construction noise audible - banging of pipes, manitou, workers talking
23	L8 - 24 Abernethys Lane, Meroo Meadow	Construction works not audible	26/06/19	13:00 13:15	51.1	No construction noise audible
24	BG10 - 35 Gardenia Crescent, Bomaderry	Construction works not audible	26/06/19	11:50 12:05	47.6	No construction noise audible
25	BG11 - 38 Elvin Drive, Bomaderry	Construction works not audible	26/06/19	12:25 12:40	56.1	No construction noise audible

7 ENVIRONMENTAL COMPLAINTS

There was one environmental complaint received in June which was closed out within the required timeframes.

Complaint No.	Date/time complaint received	Nature of Complaint	Actions and due date	Status/timing
1	21/6/19 12:15 am	Noise	Alternate accommodation was offered prior to nightworks commencing and this offer was reiterated, but not taken	Responded within 24 hours, resolved within 5 days