

ENVIRONMENT PROTECTION LICENCE NO: 21029

April 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 1-1 Project location

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

2 NON-COMPLIANCES

There was one non-compliance with EPL conditions in April 2019:

One non-conformance occurred in the month during clearing and grubbing. Mulch containing
weeds generated on site had been removed from the premises by a subcontractor and disposed
to a facility that was not licenced to receive mulch. Subsequently the mulch was recovered and
then disposed to a licenced waste facility



3 RAINFALL AND WEATHER

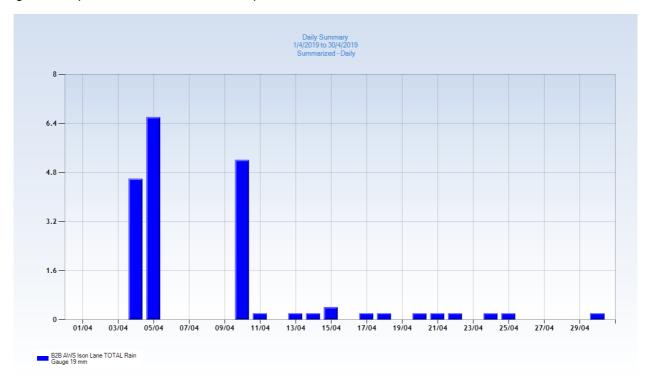
The RMS automatic weather station is situated at Ison Lane, Jaspers Brush, located adjacent to the project's main ancillary compound (Ison Lane Compound) for the project. The results of rainfall monitoring for April 2019 are provided in Figure 3-1 and Figure 3-2 below.

Figure 3-1 April 2019 Rainfall monitoring results

| Location | Monthly rainfall recorded (mm) | | |
|--|--------------------------------|--|--|
| Ison Lane, Jaspers Brush (RMS automatic weather station) | 19.0mm | | |

April 2019 was quite a dry month with only 19mm of rainfall during the period. There were three rainfall events recorded at the project specific weather station (Ison Lane, Jaspers Brush (RMS automatic weather station). The largest rainfall event occurred on Sunday 5th of April when 6.6mm of rainfall was recorded.

Figure 3-2 April Rainfall Results Ison Compound Weather Station



During April the predominant wind was from the south-southwest. The highest wind gust recorded was 46.1 km/h and maximum wind speed was 31.5 km/h (refer Figure 3-3). DSWJV continue to monitor site activities, implement dust suppressant across site and utilise a fleet of water carts during working hours.



Deily Summary
1/4/2019 to 30/4/2019
Summarzed - Daily

37.6

28.2

18.8

9.4

9.4

BZB AVS Ison Lane MAXIMUM
Wind Speed 31.5 km/h
Wind Speed 31.5 km/h

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

4 SEDIMENT BASIN DISCHARGE

Fifteen sediment basins were licensed under the EPL during April 2019. The list of basins is outlined in Table 4-1 below. The most recent basin to be commissioned was PB24.45N located south of Wileys Creek.



Table 4-1 April 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 | 5/04/2019 | 6.87 | 7 | None visible |
| | | 8/04/2019 | 7.95 | 9 | None visible |
| | | 16/04/2019 | 7.47 | 8 | None visible |
| | | 29/04/2019 | 7.13 | 8 | None visible |
| TB21150.S | Opposite O'Keeffe's Lane | 12/04/2019 | 7.12 | 11 | None visible |
| TB21500.N | Opposite Jaspers Brush Road | N | o discharge | s during April 2 | 019 |
| TB22100.N | Strongs Road | N | o discharge | s during April 2 | 019 |
| TB22250.S | Opposite Strong's Road | N | o discharge | s during April 2 | 019 |
| TB22650.S | Opposite Isons Compound | 2/04/2019 | 7.56 | 13 | None visible |
| | | 12/04/2019 | 7.06 | 6 | None visible |
| TB22800.N | Ison Compound | 9/04/2019 | 8.03 | 15 | None visible |
| TB23400.S | Jaspers Brush North of Wileys Creek | 3/04/2019 | 7.76 | 46 | None visible |
| TB23450.S | Jaspers Brush North of Wileys Creek | No discharges during April 2019 | | | 019 |
| PB24.45N | South of Wileys Creek | 8/04/2019 | 8.08 | 16 | None visible |
| | | 16/04/2019 | 8.16 | 6 | None visible |
| TB23800.S | Wileys side track compound | No discharges during April 2019 | | | 019 |
| TB25100.N | Devitts Lane | 8/04/2019 | 6.68 | 18 | None visible |
| | | 16/04/2019 | 7.75 | 7 | None visible |
| TB25700.N | South of Devitts Lane | 8/04/2019 | 7.38 | 15 | None visible |
| | | 16/04/2019 | 7.36 | <5 | None visible |
| TB26150S | North of Tandingulla Creek | 16/04/2019 | 7.44 | 6 | None visible |
| TB28900.N | Abernethy's Lane | 3/04/2019 | 6.8 | 24 | None visible |
| | | 8/04/2019 | 6.53 | 15 | None visible |

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

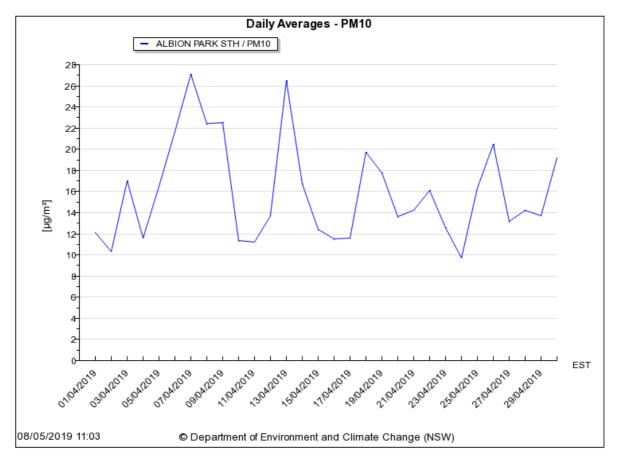


5 AIR MONITORING RESULTS

Dust deposition gauges for the project were installed on 29 March 2019 and changed on 29 April 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



One exceedance of the monthly criteria was observed at EPL monitoring location DDG-L (1028 Meroo Rd) refer Table 5-1 for the data. During April there was an increase in the volume of activities in this area including works to tie in Meroo Road to the construction area. This activity required earthworks adjacent to the monitoring point, which was then followed by Meroo Road being re-sealed. DSWJV will continue to monitor dust levels at this location and will implement additional controls if further exceedances are recorded following the sealing of Meroo Road.



Despite an exceedance of the monthly criteria for deposited dust at one monitoring location during April, the rolling average at all locations remains below the relevant criteria for the construction period to date. DSWJV will continue to review and implement air quality control measures in the project area including the use of water carts, polymer spray and stabilisation of working areas where possible.

Table 5-1 April 2019 Air quality monitoring results

| EPA Identification No. | Location (adjacent address) | Ash Content g/m²,month | Combustible Matter g/m²,month | Total Insoluble Matter g/m²,month | Rolling Average (Total Insoluble Matter) g/m²,month |
|------------------------------|--|------------------------------|-------------------------------------|---|---|
| 1-DDG A | 10 Croziers Lane, Jaspers Brush | 0.8 | 0.7 | 1.5 | 3.1 |
| 2-DDG B | 10A Jaspers Brush Road, Jaspers Brush | 1.0 | 0.4 | 1.4 | 2.2 |
| 3-DDG C | 20C Strongs Road, Jaspers Brush | 0.9 | 0.5 | 1.4 | 2.9 |
| 4-DDG D | 10C Jaspers Brush Road, Jaspers Brush | 2.5 | 1.5 | 4.0 | 2.2 |
| 5-DDG E | 30 Ison Lane, Jaspers Brush | 0.4 | 0.3 | 0.7 | 1.3 |
| 6-DDG F | Lot 209 DP 1210788 | 2.4 | 0.5 | 2.9 | 3.0 |
| 7-DDG H | 10 Lamonds Lane, Meroo Meadow | 3.2 | 0.6 | 3.8 | 3.8 |
| 8-DDG I | 19 Boxsells Lane, Meroo Meadow | 0.5 | 0.2 | 0.7 | 1.6 |
| 9-DDG J/K | 265 Princes Highway, Meroo Meadow | 0.8 | 2.3 | 3.1 | 3.3 |
| 10-DDG L | 1028 Meroo Meadow, Meroo Meadow | 3.6 | 0.5 | 4.1 | 3.5 |
| 11-DDG M | 32 Elvin Drive, Bomaderry | 0.5 | 0.3 | 0.8 | 2.1 |
| 12-DDG N | 9 Devitt's Lane, Meroo Meadow | 1.1 | 0.4 | 1.5 | 1.9 |
| 13-DDG P | 24 Abernethys Lane, Meroo Meadow | 0.6 | 0.3 | 0.9 | 3.5 |

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 April 2019. No exceedances above predicted levels for the relevant activity were recorded.

The results of April noise monitoring are summarised in Table 6-1 below.



Table 6-1 April 2019 Noise Monitoring Results

| EPA ID No. | Location description | Construction activity | Date | Time | L(A)eq 15min | Comments |
|------------------|--|--|-----------|----------------|-----------------|--|
| 15 | L1 - B210 Princes Highway, Jaspers | No construction within the vicinity | 15/4/2019 | 11:25 11:40 | 67.8 | Constant traffic from Princes Highway with light and heavy vehicles |
| 16 | L2 - 20C Strongs Road, Jaspers Brush | Bridgeworks | 15/4/2019 | 10:58 11:13 | 68.9 | Workers preparing formwork constructing bridge abutment – power saw (8 occurrences), hammering. Small generator running constantly (65 dBA). Constant traffic from Princes Highway with light and heavy vehicles. Trucks more audible than construction. |
| 17 | L3 - 30 Ison Lane, Jaspers Brush | Compound Operation | 15/4/2019 | 10:26 10:41 | 55.0 | Constant traffic in the distance from Princes Highway with light and heavy vehicles |
| 18 | L5 - 15 Turner Lane, Jaspers Brush | Earthworks | 15/4/2019 | 11:46 12:01 | 58.0 | Dozer operating in the distance, revving and sound of reversing squawker. Constant traffic from Princes Highway with light and heavy vehicles. |
| 19 | L6 - B710 Princes Highway, Jaspers Brush | No construction activities in vicinity | 15/4/2019 | 10:12 10:27 | 58.6 | Constant traffic from Princes Highway with light and heavy vehicles |
| 20 | L7 - 310C Princes Highway, Jaspers Brush | Earthworks | 15/4/2019 | 12:10 12:25 | 68.1 | Constant traffic from Princes Highway with light and heavy vehicles. Excavator audible during breaks in traffic. |
| 21 | BG08 - 19 Boxsells Lane, Meroo Meadow | No construction activities in vicinity | 15/4/2019 | 9:52 10:07 | 56.2 | Distant noise from Princes Highway Traffic, several cars passing on Boxsells Lane. n.b. no L.O.S to Princes Highway |
| 22 | BG09 - 1028 Meroo Road, Meroo Meadow | No construction activities in vicinity | 15/4/2019 | 12:31 12:46 | 53.0 | Cars and Trucks passing on Meroo Road, distant noise from Princes Highway Traffic, |
| 23 | L8 - 24 Abernethys Lane, Meroo Meadow | Earthworks | 15/4/2019 | 9:25 9:40 | 66.6 | Grader operating - revving and reversing squawker. Constant traffic from Princes Highway with light and heavy vehicles. |
| 24 | BG10 - 35 Gardenia Crescent, Bomaderry | No construction activities in vicinity | 15/4/2019 | 12:51 13:06 | 44.8 | Very distant sound of traffic noise from Princes Highway, birds chirping. |
| 25 | BG11 - 38 Elvin Drive, Bomaderry | No construction activities in vicinity | 15/4/2019 | 9:10 9:25 | 61.8 | Constant traffic from Princes Highway with light and heavy vehicles |

7 ENVIRONMENTAL COMPLAINTS

No environmental complaints were received in April. DSWJV continue to respond to complaints swiftly and appropriately and in accordance with the project's complaints management process when received.