



**ENVIRONMENT PROTECTION LICENCE NO: 21029**

**April 2020 Monthly Report**

FOR

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**Princes Highway Upgrade  
between Berry and Bomaderry**

## Document control

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## Revision history

Revision	Date	Description	Approval
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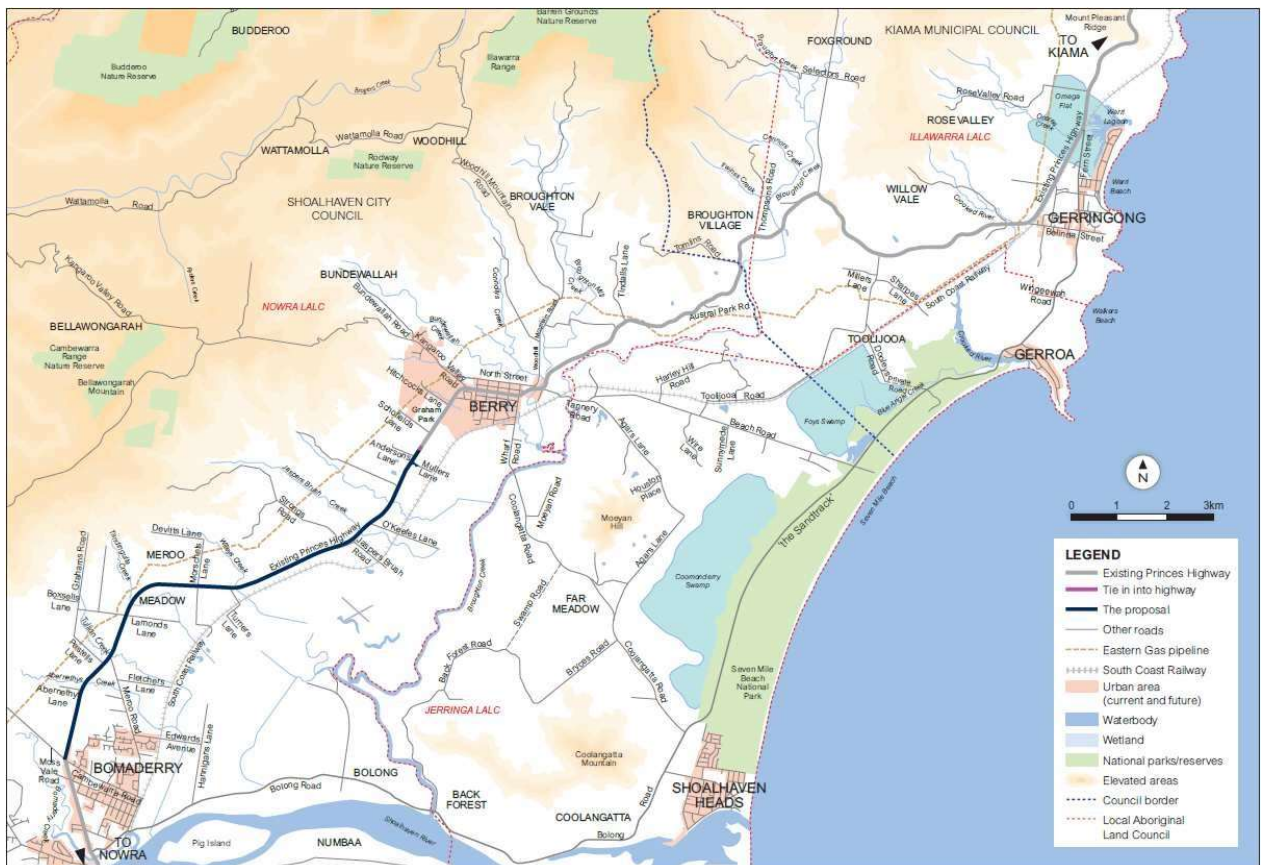
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# 1 INTRODUCTION

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 April 2020 as required by the project’s Environment Protection Licence (EPL 21029) Condition R4.1.

## 2 NON-COMPLIANCES

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

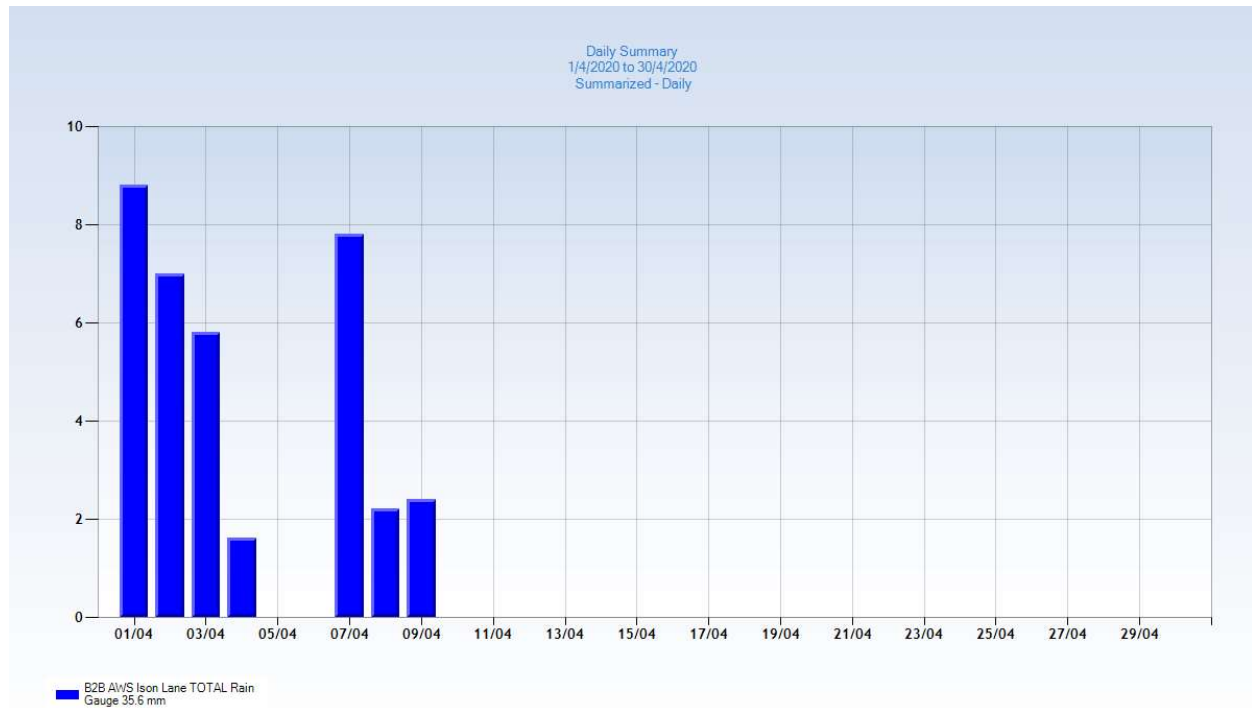
## 3 RAINFALL AND WEATHER

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 2020 are provided in Table 3-1 and Figure 3-1 below.

**Table 3-1 April 2020 Rainfall monitoring results**

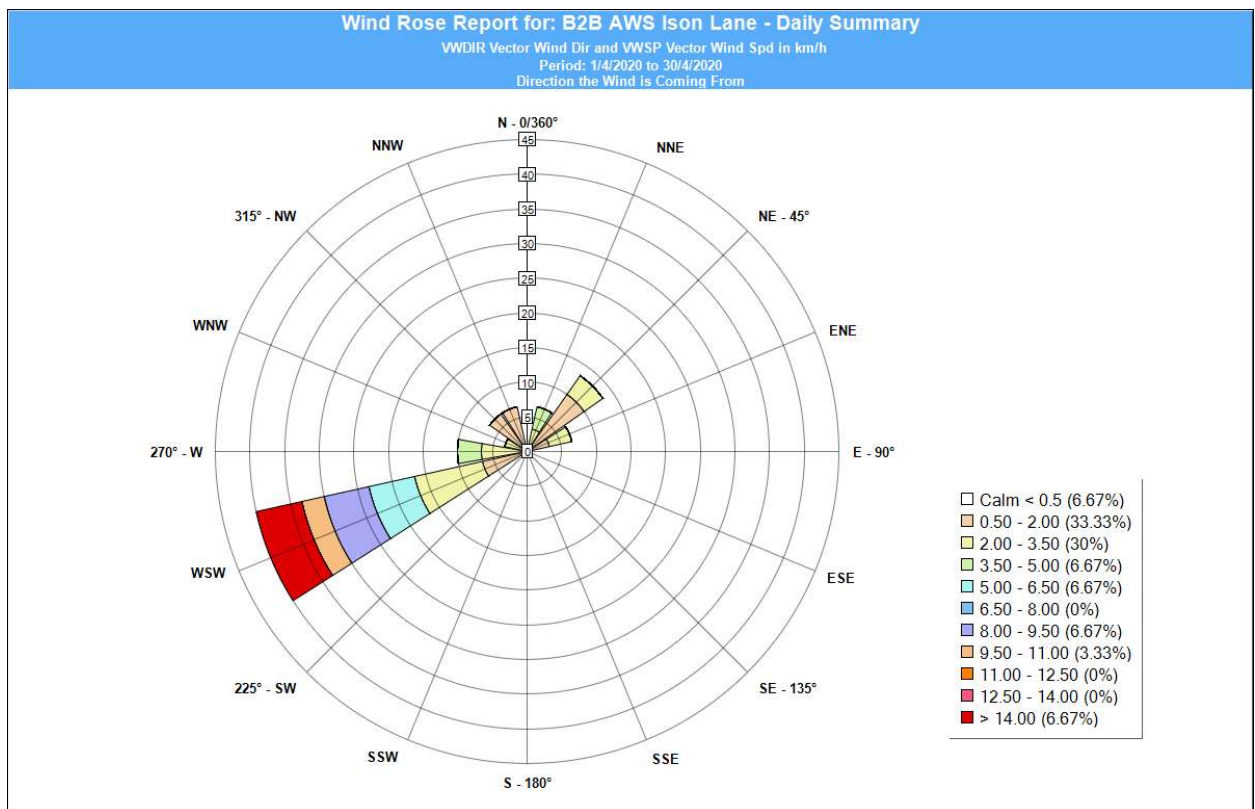
Location	Monthly rainfall recorded (mm)
Ison Lane, Jaspers Brush (RMS automatic weather station)	35.6

April experienced a total of 35.6mm rainfall recorded at the project specific weather station at Ison Lane, Jaspers Brush (RMS automatic weather station). The weather during April was drier than average as the long-term mean expected rainfall is 62.5 mm for April as taken from the Nowra RAN Air Station Bureau of Meteorology Weather Station (Station Number 068076).



**Figure 3-1 April Rainfall Results from Ison Compound Weather Station**

Mild conditions prevailed during April with several days experiencing high wind speeds. The predominant wind direction for April was from the WSW. The highest wind gust recorded was 91.1 km/h and the maximum wind speed was 46.9 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 April 2020 Wind Rose Results from Ison Lane Compound Weather Station. Average Wind direction and Average Wind Speed shown.**

## 4 SEDIMENT BASIN DISCHARGE

Eighteen sediment basins and one discharge point were licensed under the EPL during April 2020.

On the 20<sup>th</sup> 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 April 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	07/04/20	7	50	None visible
PB24.45.N	B660 Princes Highway	14/04/20	8.15	9.3	None visible
TB21.15.N	Opposite O'Keefes Lane	15/04/20	7.5	20	None visible
TB21.50.N	Opposite Jaspers Brush Road	14/04/20	7	30	None visible
TB21.70.S	Intersection at Jaspers Brush Road	14/04/20	7	30	None visible
TB21.90.S	Jaspers Brush Ancillary Site	15/04/20	7	20	None visible
TB22.10.N	Strongs Road	No discharges in April 2020			
TB22.25S	Opposite Strongs Road	No discharges in April 2020			
TB22.30.N	South of Strongs Road	16/04/20	7	20	None visible
TB22.65.S	Opposite Ison Lane	07/04/20	7.5	40	None visible
		15/04/20	7.5	60	None visible
TB22.65N	North of Ison Lane	14/04/20	7	50	None visible
TB22.80.N	Ison Compound	02/04/20	7.5	60	None visible
		14/04/20	7.5	50	None visible
TB23.60N	South of Ison Lane	14/04/20	7.5	50	None visible
TB25.10.N	Devitts Lane	14/04/20	7.84	10.8	None visible
TB25.70N	South of Devitts Lane	No discharges in April 2020			
TB25.75.N	South of Devitts Lane	No discharges in April 2020			
TB26.15S	North of Tandingulla Creek	No discharges in April 2020			
TB26.15N	North of Tandingulla Creek	14/04/20	6.54	79.8	None visible
		17/04/20	7.43	9.5	None visible
TB28.90.N	Abernethy's Lane	15/04/20	7	50	None visible
CH27.81N	Pestells Lane	No discharges in April 2020			

## 5 AIR MONITORING RESULTS

Dust deposition gauges for the project were installed on 20 March 2020 and changed on 17 April 2020 for a total of 28 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).

Total insoluble matter exceeded the monthly target of 4g/m<sup>2</sup>/month at monitoring location DDG-A (Croziers Lane, Jaspers Brush) during the month of April, however the rolling average remained below the annual criteria. Topsoil screening and earthworks were being undertaken to the south of this dust gauge approximately 100m to the south from the dust deposition gauge on intermittent days. Topsoil screening has now ceased for the near term and the stockpiled soil has been stabilised with hydromulch.

Burning off has also been undertaken by a number of local property owners during April, including within paddocks adjacent to monitoring location DDG-A and this may have also contributed to the elevated dust levels. The level of combustible matter at this gauge was also much higher than other monitoring locations during April, which is likely attributable to grass slashing in the paddocks around the monitoring location.

**Table 5-1 April 2020 Air quality monitoring results**

EPA Identification No.	Location (adjacent address)	Ash Content g/m <sup>2</sup> ,month	Combustible Matter g/m <sup>2</sup> ,month	Total Insoluble Matter g/m <sup>2</sup> ,month	Rolling Average (Total Insoluble Matter) g/m <sup>2</sup> ,month
1-DDG A	10 Croziers Lane, Jaspers Brush	3.8	2.4	<b>6.2</b>	3.8
2-DDG B	10A Jaspers Brush Road, Jaspers Brush	1.2	0.5	1.7	2.9
3-DDG C	20C Strongs Road, Jaspers Brush	0.7	0.4	1.1	2.5
4-DDG D	10C Jaspers Brush Road, Jaspers Brush	1.6	0.5	2.1	3.7
5-DDG E	30 Ison Lane, Jaspers Brush	0.3	0.3	0.6	1.0
6-DDG F	Lot 209 DP 1210788	0.7	0.4	1.1	2.3
7-DDG H	10 Lamonds Lane, Meroo Meadow	0.8	0.5	1.3	3.1
8-DDG I	19 Boxsells Lane, Meroo Meadow	0.4	0.4	0.8	1.7
9-DDG J/K	265 Princes Highway, Meroo Meadow	0.4	0.2	0.6	3.5
10-DDG L	1028 Meroo Meadow, Meroo Meadow	3.0	0.5	3.5	3.3
11-DDG M	32 Elvin Drive, Bomaderry	1.1	1.1	2.2	3.2
12-DDG N	9 Devitt's Lane, Meroo Meadow	1.2	0.1	1.3	1.9
13-DDG P	24 Abernethys Lane, Meroo Meadow	1.2	1.2	2.4	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 for the month of April with some days of fair conditions.

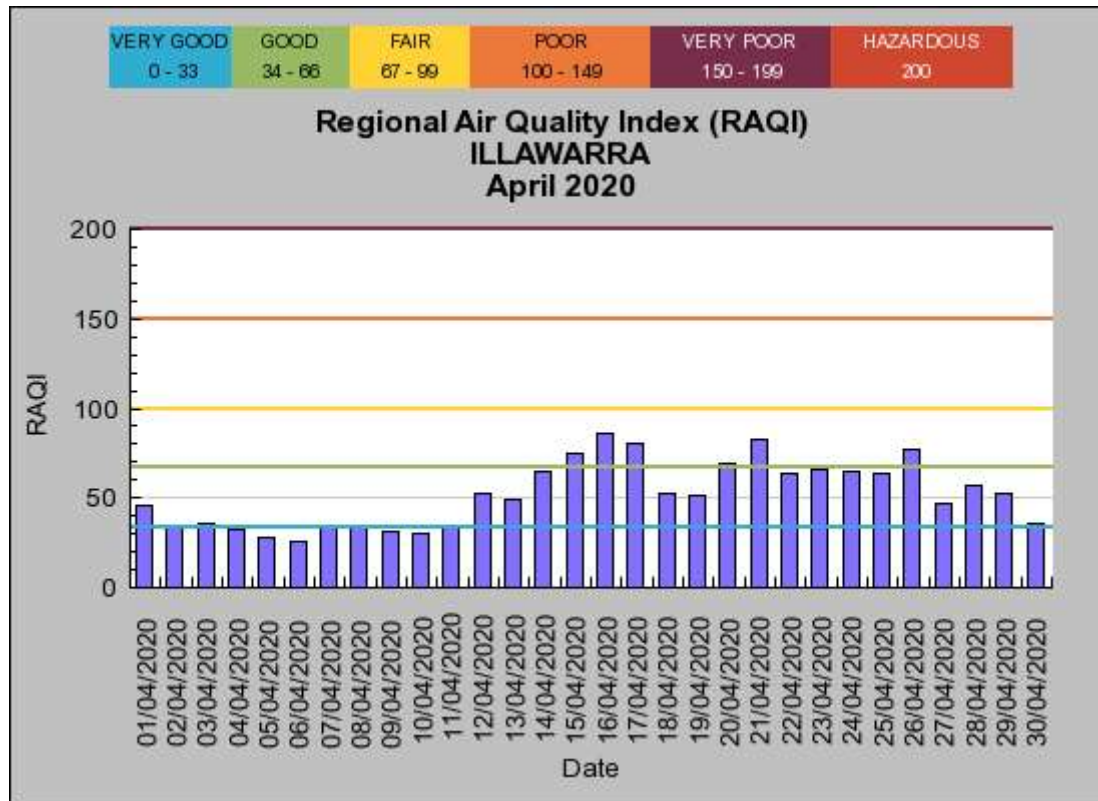


Figure 5-1: Regional Air Quality Index for April from the nearest OEH air quality monitoring stations – Illawarra (NSW OEH).

## 6 NOISE MONITORING RESULTS

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

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

Table 6-1 April 2020 Noise Monitoring Results

EPA ID No.	Location description	Construction activity	Date	Time	L(A) <sub>eq</sub> 15min	Comments
15	L1 - B210 Princes Highway, Jaspers	Earthworks	23/4/2020	10:20	61.7	<ul style="list-style-type: none"> <li>Excavator loading truck and dogs approximately 150m away from monitor.</li> <li>Street sweeper operating on road near to monitor.</li> <li>Constant traffic noise from the Princes Highway.</li> </ul>

EPA ID No.	Location description	Construction activity	Date	Time	L(A)eq 15min	Comments
16	L2 - 20C Strongs Road, Jaspers Brush	Rock crushing, screening and hammering	17/4/2020	8:12	55.0	<ul style="list-style-type: none"> <li>2 x excavators working at base of Strongs Road retaining wall.</li> <li>Constant traffic from the Princes Highway.</li> </ul>
17	L3 - 30 Ison Lane, Jaspers Brush	Earthworks/ Rock crushing, screening and hammering	22/4/2020	15:39	48.2	<ul style="list-style-type: none"> <li>Rock crushing occurring some distance from the monitor to the southeast.</li> <li>Earthworks occurring in the distance to the northeast of the monitor. Excavator digging drainage line.</li> <li>Grader, roller and water cart working in tandem to place layers of material delivered by truck and dogs (reversing squawkers audible)</li> </ul>
18	L5 - 15 Turner Lane, Jaspers Brush	Bridgeworks/Earthworks	23/4/2020	8:38	54.9	<ul style="list-style-type: none"> <li>Constant Princes Highway traffic works occurring on opposite side of the highway.</li> <li>2 x excavators operating, one loading truck and dogs and another trimming batters.</li> <li>Light vehicles movements through site area.</li> <li>Workers on bridge (not audible over other works/sounds)</li> </ul>
19	L6 - B710 Princes Highway, Jaspers Brush	Earthworks	22/4/2020	15:01	61.7	<ul style="list-style-type: none"> <li>Grader, roller and water cart operating to trim material for road surface.</li> <li>Constant traffic from Princes Highway</li> </ul>
20	L7 - 310C Princes Highway, Jaspers Brush	Rock crushing, screening and hammering	23/04/2020	10:51	57.6	<ul style="list-style-type: none"> <li>2 x large excavators rock hammering, truck and dogs being loaded by another excavator.</li> <li>Constant Princes Highway traffic works occurring on opposite side of the highway.</li> </ul>
21	BG08 - 19 Boxsells Lane, Meroo Meadow	Earthworks	22/4/2020	14:11	62.1	<ul style="list-style-type: none"> <li>Multiple excavators operating to the north and south of monitor including a truck and dog haul to move material.</li> <li>Constant traffic from the Princes Highway.</li> </ul>

EPA ID No.	Location description	Construction activity	Date	Time	L(A) <sub>eq</sub> 15min	Comments
22	BG09 - 1028 Meroo Road, Meroo Meadow	Bridgeworks	17/4/2020	8:59	59.2	<ul style="list-style-type: none"> <li>Constant traffic from the Princes Highway.</li> <li>Workers on bridge</li> <li>Excavators rock hammering in the distance</li> </ul>
23	L8 - 24 Abernethys Lane, Meroo Meadow	Earthworks	16/4/2020	17:10	56.3	<ul style="list-style-type: none"> <li>Constant traffic from Princes Highway.</li> <li>Earthworks to north and south of monitor. Bulldozer spreading material with padfoot roller compacting. Grader spreading material brought in by truck and dogs.</li> </ul>
24	BG10 - 35 Gardenia Crescent, Bomaderry	Drainage	17/4/2020	9:43	57.2	<ul style="list-style-type: none"> <li>Excavators operating in distance to dig drainage and lay pipes.</li> <li>Distant traffic from the Princes Highway.</li> </ul>
25	BG11 - 38 Elvin Drive, Bomaderry	Drainage	16/4/2020	16:30	62.9	<ul style="list-style-type: none"> <li>Constant Princes Highway traffic works occurring on opposite side of the highway</li> <li>Excavators digging drainage on and loading pipes into trenches.</li> </ul>

## 7 ENVIRONMENTAL COMPLAINTS

Complaint Details	Required timeframe for response (G36)	Date / time complaint received	Actions & date completed	Status / timing
<p>Resident at Pestells Lane</p> <p>Complaint about dust impacts to property resulting from section of road outside the project area where the verge is unsealed</p>	<p>24 hours – response (SMS)</p> <p>5 days resolution</p>	27/04/20 – 12:02	DSWJV agreed to use a water cart for dust suppression several times a day on this section of road (although outside of construction area).	Addressed the complaint the following day.
<p>Resident on Boxsells Lane.</p> <p>Complaint regarding dust (same as the above) as this resident needs to access their property from Pestells Lane whilst Boxsells Lane is excavated. Also complained about excessive noise from earthworks on Boxsells Lane.</p>	<p>24 hours – response (email)</p> <p>5 days resolution</p>	27/04/20 – 15:53	<p>As above issue regarding dust on Pestells Lane was resolved the following day.</p> <p>In regard to noise from nearby works; regular noise monitoring has been undertaken in the immediate vicinity of Boxsells Lane prior and after this complaint. No levels above the relevant criteria were recorded during monitoring.</p> <p>Further monitoring will be undertaken as works continue in this area.</p>	Addressed the complaint the following day.