FINAL

Annual Review 2017

Borg Panels Oberon

124 Lowes Mount Road, Oberon NSW

Borg Panels Pty Ltd

17 July 2017

Revision History

Rev No.	Revision Date	Author / Position	Details	Authorised	
				Name / Position	Signature
0	07/07/17	Carly McCormack Planning and Environmental Officer	Draft	Victor Bendevski Environmental and Regulatory Compliance	
1	17/07/17	Carly McCormack Planning and Environmental Officer	Final	Victor Bendevski Environmental and Regulatory Compliance	

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1 Introduction

1.1 Scope

This Annual Review has been prepared for the Borg Panels Oberon site and covers the twelve month reporting period from 1 May 2016 to 30 April 2017. This Annual Review has been prepared to satisfy Condition C11 of Development Consent SSD 7016 issued by the Minister for Planning on 29 May 2017.

The Borg Panels facility is located at 124 Lowes Mount Road, Oberon and consists of a Medium Density Fibreboard (MDF) manufacturing plant and a mouldings manufacturing plant.

The Annual Review is submitted to NSW Department of Planning and Environment (DP&E), NSW Environment Protection Authority (EPA) and Oberon Council to ensure all interested parties are kept informed of the environmental performance of the Development. The Annual Review is also available on the Borg website.

1.2 Background

In March 2010, Borg Panels acquired the former Carter Holt Harvey MDF and mouldings plant at Oberon. In 2012 Borg Panels also acquired the associated JeldWen factory, located adjoining the MDF plant. Borg have integrated the facilities into one site, which they own and operate.

The Borg Panels facility manufactures a range of MDF products (Customwood) including:

- Standard MDF;
- Moisture Resistant MDF;
- E0 (Low Formaldehyde Emitting) MDF;
- Ultraprime MDF Mouldings;
- Decorative Laminated MDF and Particle Board; and
- Treated paper for the lamination of MDF and Particle Board.

The Borg Panels facility forms part of the wider Oberon Timber Complex (OTC).

1.3 Consents

During the reporting period the Borg Panels facility operated under Ministerial Consent DA27/95, approved on 5 October 1995 by the then Minister for Urban Affairs and Planning. DA27/95 also governs the operations of Structaflor particleboard flooring facility and Highland Pine Products Sawmill 2 that form part of the OTC, but are outside the ownership of Borg Panels.

Application was made to DP&E in April 2015 to construct and operate a particleboard facility and make alterations and additions to the existing MDF facility. This application also sought to remove the Borg Panels operations from DA27/95 (that applies to the OTC) and consolidate all Borg operations under a new single development consent.

Development Consent SSD 7016 was issued by the Minister for Planning on 29 May 2017 to construct and operate a particle board facility, and to continue operating, and make alterations and additions to the existing MDF facility. As of 29 May 2017, the site now operates under this new consent SSD 7016.

Condition A26 of SSD 7016 allows Borg Panels to surrender DA27/95. This is to occur within 6 months from 29 May 2017.

A summary of development consents currently held by Borg Panels is outlined in **Table 1**.

Table 1 – Borg Panels Development Consents

Consent Description	Date	Approval Authority	Approved Development
DA27/95	5 October 1995	Then Minister for Urban Affairs and Planning	Expand and upgrade existing MDF plant; construct new sawmill with planer and dryer; and develop a tannin extraction plant (Radtan) to make resins for the particle board plant. Increase in road transport of raw materials and product.
DA27/95 M1	3 May 2001	Then Minister for Urban Affairs and Planning	
DA27/95 MOD-83-10-2002-i	27 February 2003	Then Minister for Urban Affairs and Planning	
DA27/95 MOD-27-2-2005-i	17 May 2005	Then Minister for Urban Affairs and Planning	Construct and operate a paint manufacturing plant to manufacture coatings material to be used on door skins within the Jeld-Wen Plant.
DA27/95 MOD 4	26 June 2008	Then Minister for Urban Affairs and Planning	Paint coating line.
DA27/95 MOD 5	17 February 2012	Then Minister for Urban Affairs and Planning	Upgrade existing MDF plant - warehouse extensions. Erection of a new warehouse to the west of the existing mouldings plant. Building extension between two existing industrial buildings. Building extension to the south of the existing mouldings plant. Workshop to the south of the primary new warehouse building, connected to the warehouse. Ancillary works, including awnings and hard stand areas.
DA27/95 MOD 6	November 2014	Then Minister for Urban Affairs and Planning	Refer MOD 7.

Consent Description	Date	Approval Authority	Approved Development
DA27/95 MOD 7	3 August 2015	Minister for Planning	Temporary hardstand area on Lot 2902 DP 1056754 for short-term storage of materials, machinery, construction plant and equipment for the duration of construction. Construction of a new Debarker Building, log lifter and log storage area. New Bark Building and retaining wall. Relocation of existing cyclone bunker. Relocation of existing Fire tanks, Pump House and Fire Control Centre. Relocation of the existing front entry gate and gate house. Installation of permanent hardstand area for additional truck parking to the south west corner of the site.
DA27/95 MOD 8	11 December 2015	Minister for Planning	Gas Fired Cogeneration Units. Removal of two gas fired steam boilers and installation of a Gas Fired Co-Generation Plant.
Development Consent SSD7016	29 May 2017	Minister for Planning	Construction and operation of a particle board facility and continuation of, and alterations and additions to, the existing medium density fibreboard facility. Surrender of DA27/95 (to be undertaken).

1.4 Annual Review Requirements

Annual Review requirements, in accordance with Condition C11 of Development Consent SSD 7016, and the section these requirements are addressed are summarised in **Table 2**.

Table 2 – Annual Review Requirements

Development Consent SSD 7016 – Condition C11	Section of Annual Review
By 31 July 2017, and each year thereafter, unless otherwise agreed by the Secretary, the Applicant must review and submit a report to the Secretary detailing the environmental performance of the Development to the satisfaction of the Secretary. This review must:	This Report
(a) describe the development that was carried out during the reporting period, and the development that is proposed to be carried out over the next reporting period;	Section 2 Section 7

Development Consent SSD 7016 – Condition C11	Section of Annual Review
(b) include a comprehensive review of the monitoring results and complaints records of the Development over the previous reporting period, which includes a comparison of these results against the: i. relevant statutory requirements, limits or performance measures/criteria; ii. requirements of any plan or program required under this consent; iii. the monitoring results of previous years; and iv. the relevant predictions in the EIS;	Section 4 Section 5
(c) identify any non-compliance during the reporting period, and describe what actions were (or are being) taken to ensure compliance;	Section 4 Section 6
(d) identify any trends in the monitoring data over the life of the Development;	Section 4
(e) identify any discrepancies between the predicted and actual impacts of the Development, and analyse the potential cause of any significant discrepancies; and	Section 4
(f) describe what measures will be implemented over the next reporting period to improve the environmental performance of the Development.	Section 7

1.5 Environment Protection Licence

Borg Panels operates in accordance with Environment Protection Licence 3035 (EPL 3035), issued on 14 February 2001 by the NSW Environment Protection Authority (EPA) under Section 55 of the *Protection of the Environment Operations Act 1997*. The current Licence version date is 8 April 2016.

1.6 Water Licences

Borg Panels holds a Water Access Licence for use of groundwater in operations. Current licence details issued under the *Water Management Act 2000* are summarised in **Table 3**.

Table 3 – Water Licences

Approval Details	Approval Number	Validity of Licence	Approval Kind	Extraction Limit
WAL28951	80WA715797	16 January 2012 – 01 March 2026	Water Extraction	28 Units

1.7 Trade Waste Licence

Borg Panels has a novated Trade Waste Service Contract with Oberon Council. The agreement approves the discharge of trade wastes into Council's sewerage system on the terms set out within the Service Contract. Term of the Service Contract is twelve months automatically renewable.

1.8 Environmental Management Plan

As documented in **Section 1.3**, during the reporting period the Borg Panels facility operated under Ministerial Consent DA27/95. In accordance with Condition 46 of DA27/95 Borg Panels have developed and implemented an Environmental Management Plan (EMP) for the operation and management of the MDF facility. The EMP was last updated on 19 February 2016.

Development Consent SSD 7016, approved on 29 May 2017, requires within six months of the date of this consent that an Operational Environmental Management Plan (OEMP) for the existing operation be prepared to the satisfaction of the Secretary. A modernised OEMP for existing operations will be prepared during the next reporting period to govern site operations.

1.9 Contacts

Table 4 outlines the contact details for site personnel responsible for operating the Borg Panels facility.

Table 4 – Site Personnel

Name	Title	Contact Details
Greg Muir	Operations Manager - Oberon	(02) 6339 6185
Jim Hawkes	Regional Work, Health, Safety and Environment Coordinator	(02) 6339 6263
Aaron Evans	Process Development and Environment Manager	(02) 6339 6066
Victor Bendevski	Environmental and Regulatory Compliance	(02) 4340 9827

1.10 Actions Required from Previous AEMR

No actions were identified in the previous Annual Environmental Management Report (AEMR) for implementation during this reporting period.

2 Operations During the Reporting Period

2.1 Operations

2.1.1 Production

Development Consent SSD 7016 allows for production of up to 380,000 m^3 of MDF per calendar year. During the reporting period the Borg Panels facility manufactured 260,433 m^3 of MDF board.

2.1.2 Facility Improvements

The following facility improvements were made to site infrastructure, plant and or equipment as a result of hazard identification or environmental incidents that occurred during the reporting period:

- Conti 1 Chip Wash bund improvements to reduce likelihood of overflow;
- Energy saving flue gas redirection of Conti 1 Heat Plant;
- Upgrades to both site dust burners, reducing fossil fuel usage;
- Further sealing of surfaces mainly around energy centre areas to improve housekeeping and ability to better sweep outdoor areas;
- Grates installed over pits to allow more frequent sweeping of area near energy centres;
- Increased frequency of sweeping on site;
- Noise reduction measures (enclosures and noise insulation) added to Bag houses. DC -2&3 vent change the most significant;
- Environmental standards training rolled out through operational areas, includes awareness and spill response;
- Increased environmental focus for Night Supervisors, particularly around noise mitigation measures;
- Completion of high-level alarms and interlocks on WTP Process Water Dams. Quarterly testing of alarms included;
- Enclosure of dry fuel area improving fugitive dust control;
- Addition of cleaning/dust capture mechanisms to multiple systems (reduce likelihood of blockages and spills);
- Process water tank (RO or softened water) moved to bunded area at WTP; and

- Demolition of the disused fuel depot at Lot 1 DP 1085563, including preliminary site investigations, detailed site investigation, site remedial action plan and commencement of remediation activities.

2.2 Construction

Construction activities carried out during the reporting period included:

- Crane Building 2;
- New Fire Pump House;
- Installed new water storage tanks for fire pumps;
- Various energy saving projects reducing carbon footprint;
- Conti 2 start-up cyclone building;
- Co-generation plant enclosure;
- Dry Fuel Shed;
- Energy plant dust burner enclosure;
- Filled area for hard stand southern side of Gate 4;
- Concrete pavement western side of administration building; and
- Office refurbishment, top level T&D building.

3 Waste Management

3.2 Liquid and Solid Waste

A summary of the date, quantity, description and destination of waste removed for the Borg Panels facility during the reporting period is provided in **Table 5**.

Table 5 – Waste Management 2016-17

Month	Quantity			Description	Destination
	m^3	Litres	Tonnes		
May 2016	450			General Waste	Oberon Council Waste Depot
		6100		Waste Oil	Transpacific Recycling
June 2016	440			General Waste	Oberon Council Waste Depot
		3300		Waste Oil	Transpacific Recycling
July 2016	435			General Waste	Oberon Council Waste Depot
August 2016	550			General Waste	Oberon Council Waste Depot
	80			Ash	Oberon Council Waste Depot
			10.14	Waste requiring Burial	Bathurst Council Waste Management Centre
		1300		Waste Oil	Transpacific Recycling
September 2016	360			General Waste	Oberon Council Waste Depot
	90			Ash	Oberon Council Waste Depot
			20.92	Waste requiring Burial	Bathurst Council Waste Management Centre
October 2016	590			General Waste	Oberon Council Waste Depot
	100			Ash	Oberon Council Waste Depot
			22.7	Waste requiring Burial	Bathurst Council Waste Management Centre
			9.2	Building and Demolition Waste	Bathurst Council Waste Management Centre
		2000		Waste Oil	Transpacific Recycling
November 2016	308			General Waste	Oberon Council Waste Depot
	110			Ash	Oberon Council Waste Depot
			9.58	Waste requiring Burial	Bathurst Council Waste Management Centre
December 2016	420			General Waste	Oberon Council Waste Depot
	90			Ash	Oberon Council Waste Depot
		6100		Waste Oil	Transpacific Recycling
January 2017	340			General Waste	Oberon Council Waste Depot
	80			Ash	Oberon Council Waste Depot

Month	Quantity			Description	Destination
	m^3	Litres	Tonnes		
			9.98	Waste requiring Burial	Bathurst Council Waste Management Centre
		3300		Waste Oil	Transpacific Recycling
February 2017	410			General Waste	Oberon Council Waste Depot
	90			Ash	Oberon Council Waste Depot
March 2017	560			General Waste	Oberon Council Waste Depot
	120			Ash	Oberon Council Waste Depot
			10.88	Waste requiring Burial	Bathurst Council Waste Management Centre
April 2017	510			General Waste	Oberon Council Waste Depot
	100			Ash	Oberon Council Waste Depot
		5000		Waste Oil	Transpacific Recycling
TOTAL	**5373**			**General Waste**	**Oberon Council Waste Depot**
	860			**Ash**	**Oberon Council Waste Depot**
			84.2	**Waste requiring Burial**	**Bathurst Council Waste Management Centre**
			9.2	**Building and Demolition Waste**	**Bathurst Council Waste Management Centre**
		27100		**Waste Oil**	**Transpacific Recycling**

Waste types in **Table 5** are further described as:

- General waste including a mix of both putrescible and non-putrescible waste.
- Bottom ash being the ash removed from the furnaces, not fly ash.
- Waste requiring burial made up of urea formaldehyde spade-able resin and paraffin wax bladders.
- Building and demolition waste including bricks, concrete, paper, plastics, glass, metal and timber.
- Used oils from the plant process oil systems and mechanical workshop.

Waste generated by the facility that requires tracking when transporting is included in **Table 6**.

Table 6 – Types and Quantities of Trackable Waste Generated 2016-17

Liquid Waste (Litres)					Hazardous Waste (Tonnes)	
Waste Oil	**Oily Water**	**Liquid Resin**	**Paint Waste**	**Laboratory Waste**	**UV Paint Solvent**	**UV Paint Rags**
27,100	Nil	Nil	Nil	Nil	Nil	Nil

All trackable waste generated was removed from site by licenced waste contractor Transpacific.

3.3 Trade Waste

Borg Panels Trade Waste Service Contract with Oberon Council is for the discharge of liquid trade wastes into Council's sewerage system. The Contract covers the quantity and quality of effluent that may be discharged. Monitoring requirements as specified in the Trade Waste Service Contract are shown in **Table 7**.

Table 7 – Trade Waste Monitoring Requirements

Parameter	Limit	Weekly	Monthly	Quarterly	Annually
COD (mg/L)	1200	X			
Suspended Solids (mg/L)	300	X			
BOD_5 (mg/L)	400			X	
pH	7.0-9.0		X		
Phosphorus (mg/L)	20		X		
Ammonia (mg/L)	50		X		
Oil and Grease (mg/L)	50				X
Colour (NTU)	150			X	
Phenol (mg/L)	5				X

A summary of the monitoring results generated from Borg internal testing for the reporting period are provided in **Table 8**.

Table 8 – Trade Waste Monitoring Results 2016-17

Parameter	Trade Waste Service Contract		2016-17		
	Limit (Maximum)	Monitoring Frequency	Highest	Average	No of Samples Tested
Temperature (°C)	38	N/A	29.9	25.9	6
Chemical Oxygen Demand (mg/L)	1200	Weekly	**1340**	1052	7
Suspended Solids (mg/L)	300	Weekly	210	55	7
pH	7.0-9.0	Monthly	8.0	7.91	6
Phosphorus (mg/L)	20	Monthly	5.5	3.5	7
Ammonia (mg/L)	50	Monthly	**80**	**56.3**	7
Colour (HU)	150	Monthly	**225**	**180**	7
Turbidity (FAU)	N/A	N/A	39	15	7
Average Daily Flow (kL)	340	Daily		67	

Trade waste was discharged to Council's sewerage system in May and June 2016 only. No further discharge occurred during the reporting period.

Maximum limits for chemical oxygen demand, ammonia and colour were exceeded. The average for ammonia and colour also exceeded the maximum limits.

Accredited third party testing of trade waste discharge is maintained by Oberon Council.

The Trade Waste Service Contract is currently under review.

4 Environmental Management and Performance

4.1 Environmental Management

Borg Panels Oberon operates in accordance with the site Environmental Management Plan as documented in **Section 1.8**. This EMP aims to protect the environment and minimise adverse impacts in accordance with the environmental performance criteria set by DP&E, EPA and Oberon Council.

Environmental monitoring is undertaken in accordance with the requirements of the EMP, EPL 3035 and Trade Waste Service Contract. Environmental monitoring is an integral part of the environmental management system. The measurement and evaluation of monitoring results allows for the assessment of performance against quantitative and qualitative standards and assists in the identification of any non-conformances or areas that may require additional attention.

4.2 Meteorological Data

In accordance with EPL 3035, Borg Panels operate and maintain a meteorological monitoring station located east of the existing Spring Dam. The following section summarises the meteorological data for the 2016-17 reporting period.

4.2.1 Rainfall

The total monthly rainfall (mm) and number of rain days during the reporting period is shown in **Table 9** and **Figure 1**. A total rainfall of 1053.2mm was recorded during the 2016-17 reporting period. This is 212.7mm above the annual mean rainfall (840.5mm) for the Oberon region (Bureau of Meteorology, Oberon Springbank Site No. 063063).

Following installation of the weather station an issue with the rain gauge was encountered, with vibration of the station registering as rainfall. The problem was identified and rectified in December 2016. Data during the period 1 May 2016 to 14 December 2016 has been adjusted to account for this recording error.

Table 9 – Recorded Rainfall 2016-17

Total Monthly Rainfall (mm)												
May	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**Total**
61.2	142.6	98	93.6	165.6	151.4	88	64.2	37	12.2	94.2	45.2	1053.2
Number of Rain Days (≥0.2mm)												
12	25	17	11	26	18	13	9	8	7	21	12	179

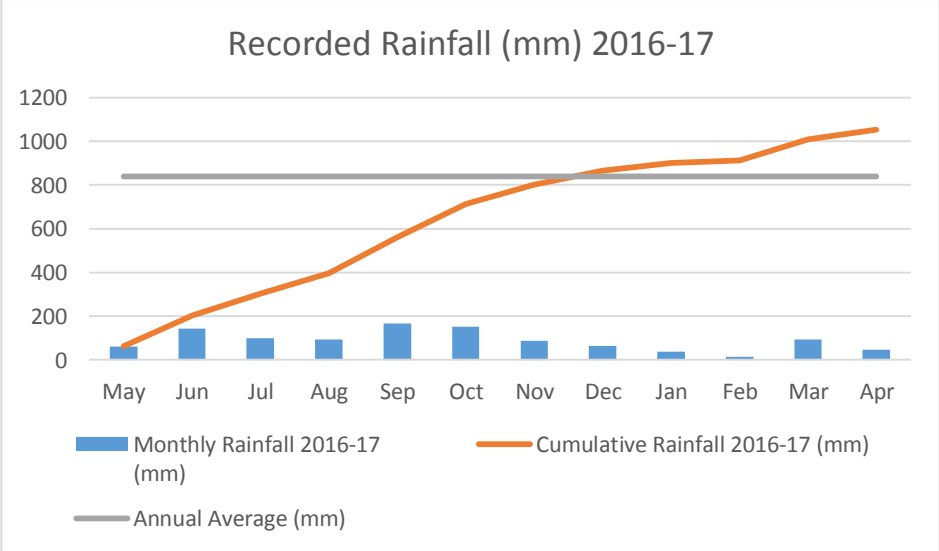


Figure 1 – Recorded Rainfall at Borg Panels Meteorological Station (mm) 2016-17

4.2.2 Temperature

Monthly maximum and minimum temperatures recorded during the reporting period are shown in **Table 10**.

Table 10 – Monthly Minimum and Maximum Temperatures 2016-17

Minimum and Maximum Monthly Temperatures (°C)											
May	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**
20.4	12.7	15.3	14.7	17.3	22	27.5	31.1	34.8	37.5	27.5	19.9
-6.9	-6.5	-6.4	-7.1	-2.3	-0.8	-1.9	1.2	7.2	2.3	4.7	-0.4

4.2.3 Wind Speed and Direction

The recorded wind speed and direction data is summarised in **Table 11**. The annual wind rose for the reporting period is displayed in **Figure 2**.

Table 11 – Monthly Wind Data 2016-17

Month	Maximum Wind Speed (km/hr)	Mean Wind Speed (km/hr)	Dominant Wind Direction
May 2016	52.8	14.5	W
June 2016	53.1	15.4	W
July 2016	66.4	16.3	WNW
August 2016	54.1	11.6	WNW
September 2016	57.9	13.7	WNW
October 2016	49.8	16.8	WNW
November 2016	50	11.9	W
December 2016	47.2	12.1	WNW
January 2017	58.5	12.7	E
February 2017	52.4	13.5	E
March 2016	52.1	14.9	ESE
April 2016	44	10.7	ESE

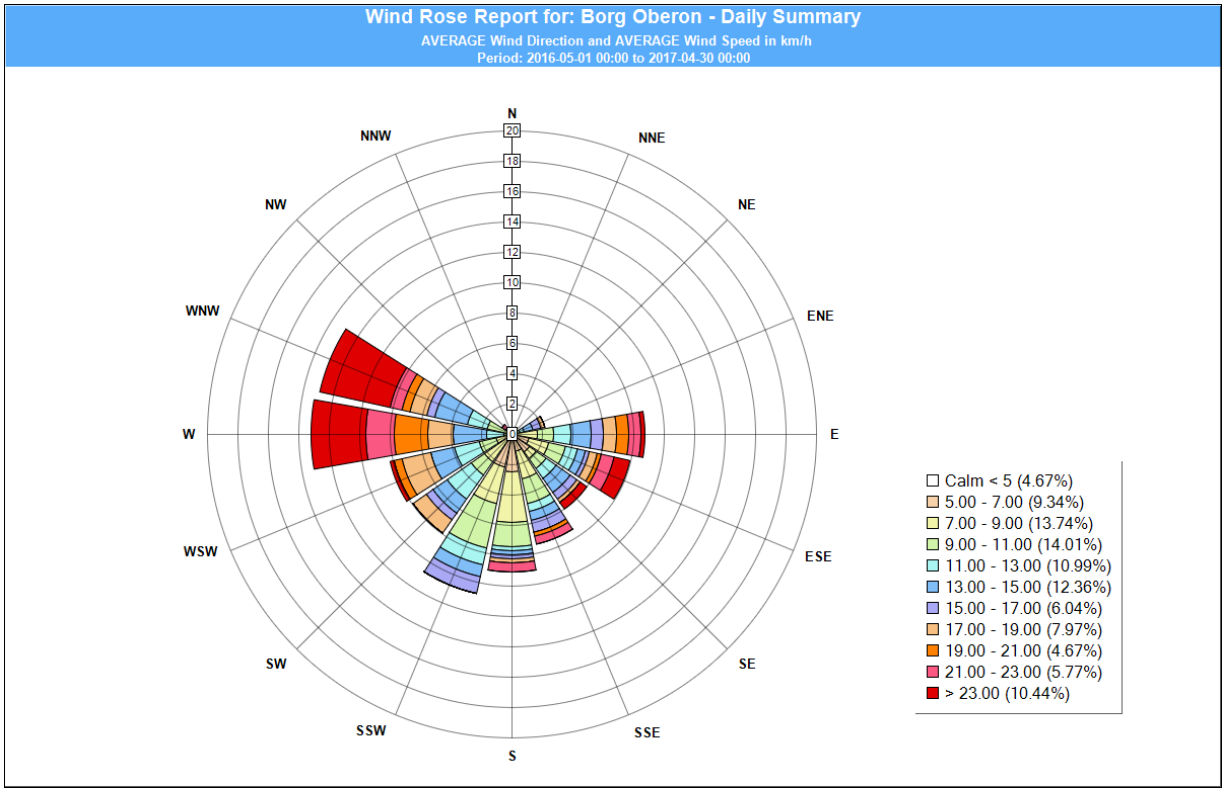


Figure 2 – Daily Average Wind Rose (km/hr) 2016-17

4.3 Air Quality

4.3.1 Dust Depositional Gauges

Borg Panels operate a network of six (6) dust depositional gauges around the facility. The location of dust depositional gauges is listed in **Table 12**.

Table 12 – Location of Dust Depositional Gauges

Dust Depositional Gauge	Location Description
DDG 1	Borg Panels eastern boundary with Woodchem
DDG 2	South West of Conti 2
DDG 3	Water treatment plant
DDG 4	Water treatment plant
DDG 5	Highlands Motor Inn
DDG 6	Albion Street east of Borg Panels plant

Dust deposition monitoring is undertaken in accordance with the *Borg Panels Environmental Management Plan* (19 February, 2016). Dust deposition monitoring is not a requirement of a consent or licence.

The air quality criteria adopted for Borg Panels for deposited dust is provided in **Table 13**.

Table 13 – Air Quality Criteria Deposited Dust

Averaging Period	Concentration (g/m^2/month)
Annual	4
Monthly	8 (maximum total)

Deposited dust is assessed as insoluble solids as defined by *Standards Australia AS3580.10.1-2003: Methods for Sampling and Analysis of Ambient Air – Determination of Particulates – Deposited Matter – Gravimetric Method*.

During the reporting period all dust samples were collected by trained specialists and analysed by NATA certified laboratories.

Table 14 provides a summary of Borg Panels annual average results for insoluble solids during the reporting period and for the previous reporting period. Monthly data and rolling annual average data is provided in **Appendix A**.

Table 14 – Dust Depositional Gauges Annual Average

No.	Location	Annual Average Insoluble Solids (g/m^2/month) 2015-16	Annual Average Insoluble Solids (g/m^2/month) 2016-17
DDG 1	Borg Panels eastern boundary with Woodchem	8.5	10.1
DDG 2	South West of Conti 2	4.0	2.6
DDG 3	Water treatment plant	1.4	1.0
DDG 4	Water treatment plant	1.1	0.6
DDG 5	Highlands Motor Inn	2.3	1.6
DDG 6	Albion Street east of Borg Panels plant	1.1	0.7

Dust depositional results during the reporting period were below the annual average criteria of 4 mg/m^2/month and below the 2015-16 results, with the exception of DDG 1.

DDG 1 is located on the boundary of the Borg Panels and Woodchem sites, another Borg Group company. This dust depositional gauge is adjacent to the borrow pit area, wood waste stockpile, and is located on an unpaved road used by vehicles carting soil from the borrow pit to the construction site, and from the plant to the wood waste stockpile. A water cart regularly wets down unsealed roads when vehicle movements are generating dust.

Todoroski Air Sciences (February 2017) prepared an *Air Quality Impact Assessment* for the expansion of the Borg Panels facility as part of the Environmental Impact Statement for the Project. Depositional dust results are below the annual average criteria of 4 g/m^2/month, and within the maximum increase criteria of 2 g/m^2/month for all gauges, with the exception of DDG 1.

4.3.2 Air Emissions

In accordance with EPL 3035, Borg Panels monitor air emissions from the plant. The locations of air emissions monitoring is listed in **Table 15**.

Table 15 – Location of Air Emissions Monitoring

EPA Identification No.	Location Description
4	DC1 Baghouse
5	DC2 Baghouse
7	Conti 2 Stage 1 Dryer Cyclone #1 (west)
8	Conti 2 Stage 1 Dryer Cyclone #2 (east)
9	Conti 1 Dryer Cyclone #1 (south)
10	Conti 1 Dryer Cyclone #2 (north)
11	Conti 2 Heat Plant
12	Press Vents Conti 1
13	Press Vents Conti 2

EPA Identification No.	Location Description
17	Conti 1 Heat Plant
18	Press exhaust vents discharge
19	Dryer stack
20	Reject cyclone DC 11
21	Reject cyclone DC 12
22	Reject cyclone DC 13
23	Paper Oven Vent Discharge

While EPA Identification Points 20, 21 and 22 (reject cyclones) are recognised as discharge points in EPL 3035, there is no requirement to monitor the concentration of pollutants discharged at these points. This plant is dormant.

For EPA Identification Points 11 and 17 the concentration of a pollutant discharged at that point must not exceed the air concentration limits specified in **Table 16**.

Table 16 – Air Concentration Limits EPA Identification Points 11 and 17

Pollutant	Units of Measure	100 percentile concentration limit
Solid Particles	mg/m^3	200
Volatile Organic Compounds	mg/m^3	10
Formaldehyde	mg/m^3	5

Sampling is undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales, January 2007*. EPA Identification Points 7, 8, 9 and 10 (dryer cyclones), in response to cyclonic flow, have a NSW EPA approved method deviation to AS4323.2 to conduct particulate matter sampling at this location.

Air emissions monitoring was undertaken by trained specialists and samples analysed by NATA certified laboratories. Monitoring equipment is maintained and calibrated in accordance with the manufacturers specifications by qualified specialists.

For each discharge point identified in **Table 15**, Borg Panels monitors the concentration of each pollutant specified in EPL 3035 as provided in **Tables 17-29**. Current reporting period results are compared against results from the previous reporting period.

Table 17 – Air Emissions Monitoring Results EPA Identification Point 4

Pollutant	Units	Frequency	2015-16	2016-17
Particulate Matter	mg/m^3	Yearly	4.3	2.3
Formaldehyde	mg/m^3	Yearly	0.09	3.7

Table 18 – Air Emissions Monitoring Results EPA Identification Point 5

Pollutant	Units	Frequency	2015-16	2016-17
Particulate Matter	mg/m^3	Yearly	2.4	<2
Formaldehyde	mg/m^3	Yearly	0.19	3.5

Table 19 – Air Emissions Monitoring Results EPA Identification Point 7

Pollutant	Units	Frequency	2015-16	2016-17
Particulate Matter	mg/m^3	Yearly	19	40

Table 20 – Air Emissions Monitoring Results EPA Identification Point 8

Pollutant	Units	Frequency	2015-16	2016-17
Particulate Matter	mg/m^3	Yearly	21	33

Table 21 – Air Emissions Monitoring Results EPA Identification Point 9

Pollutant	Units	Frequency	2015-16	2016-17
Particulate Matter	mg/m^3	Yearly	29	9.8
Formaldehyde	mg/m^3	Yearly	3	1.1
Nitrogen Oxides	mg/m^3	Yearly	250	150
PM10	mg/m^3	Yearly	25	5.9
Volatile Organic Compounds	mg/m^3	Yearly	1.3	2.9

Table 22 – Air Emissions Monitoring Results EPA Identification Point 10

Pollutant	Units	Frequency	2015-16	2016-17
Particulate Matter	mg/m^3	Yearly	31	21
Formaldehyde	mg/m^3	Yearly	3.1	2.4
Nitrogen Oxides	mg/m^3	Yearly	250	170
PM10	mg/m^3	Yearly	28	8
Volatile Organic Compounds	mg/m^3	Yearly	1.5	5.3

Table 23 – Air Emissions Monitoring Results EPA Identification Point 11

Pollutant	Units	Frequency	Concentration Limit	2015-16	2016-17
Particulate Matter	mg/m^3	Yearly	200	75*	130*
Formaldehyde	mg/m^3	Yearly	5	<0.01	<0.01
Nitrogen Oxides	mg/m^3	Yearly	No Limit	530	530
PM10	mg/m^3	Yearly	No Limit	37*	80*
Volatile Organic Compounds	mg/m^3	Yearly	10	0.99	0.12
Smoke Emissions	percent Opacity	Every 6 months	No Limit	0	0

Note: * Corrected to 6.5% CO_2 mg/m^3

Table 24 – Air Emissions Monitoring Results EPA Identification Point 12

Pollutant	Units	Frequency	2015-16	2016-17
Particulate Matter	mg/m^3	Every 3 years	-	-
Formaldehyde	mg/m^3	Every 3 years	-	-
Nitrogen Oxides	mg/m^3	Every 3 years	-	-
PM10	mg/m^3	Every 3 years	-	-
Volatile Organic Compounds	mg/m^3	Every 3 years	-	-

Note: EPA Point 12 due for sampling in 2018

Table 25 – Air Emissions Monitoring Results EPA Identification Point 13

Pollutant	Units	Frequency	2015-16	2016-17
Particulate Matter	mg/m^3	Every 3 years	-	-
Formaldehyde	mg/m^3	Every 3 years	-	-
Nitrogen Oxides	mg/m^3	Every 3 years	-	-
PM10	mg/m^3	Every 3 years	-	-
Volatile Organic Compounds	mg/m^3	Every 3 years	-	-
Carbon Dioxide	mg/m^3	Every 3 years	-	-
Carbon Monoxide	mg/m^3	Every 3 years	-	-

Note: EPA Point 13 due for sampling in 2018

Table 26 – Air Emissions Monitoring Results EPA Identification Point 17

Pollutant	Units	Frequency	Concentration Limit	2015-16	2016-17~
Particulate Matter	mg/m^3	Yearly	200	190*	0
Formaldehyde	mg/m^3	Yearly	5	0.017	0
Nitrogen Oxides	mg/m^3	Yearly	No Limit	1000	0
PM10	mg/m^3	Yearly	No Limit	140*	0
Volatile Organic Compounds	mg/m^3	Yearly	10	1	0
Smoke Emissions	percent Opacity	Every 6 months	No Limit	0	0

Note: * Corrected to 6.5% CO2 mg/m^3
~ No flow. Exhaust from Conti 1 Heat Plant now ducted back into the Conti 1 production system

Table 27 – Air Emissions Monitoring Results EPA Identification Point 18

Pollutant	Units	Frequency	2015-16	2016-17
Particulate Matter	mg/m^3	Every 3 years	Dormant	Dormant
Formaldehyde	mg/m^3	Every 3 years	Dormant	Dormant
Volatile Organic Compounds	mg/m^3	Every 3 years	Dormant	Dormant
Velocity	mg/sec	Every 3 years	Dormant	Dormant

Note: EPA Point 18 due for sampling in 2018

Table 28 – Air Emissions Monitoring Results EPA Identification Point 19

Pollutant	Units	Frequency	2015-16	2016-17
Particulate Matter	mg/m^3	Yearly	Dormant	Dormant
Nitrogen Oxides	mg/m^3	Yearly	Dormant	Dormant
Volatile Organic Compounds	mg/m^3	Yearly	Dormant	Dormant
Velocity	mg/sec	Yearly	Dormant	Dormant

Table 29 – Air Emissions Monitoring Results EPA Identification Point 23

Pollutant	Units	Frequency	2015-16	2016-17
Particulate Matter	mg/m^3	Yearly	3.1	8.5
Formaldehyde	mg/m^3	Yearly	4	0.46
Volatile Organic Compounds	mg/m^3	Yearly	0.57	0.53

EPA Identification Points 11 and 17 have specified air concentration limits for pollutants discharged. Monitored results for EPA Identification Point 11 were below licence limits. Testing was conducted at EPA Identification Point 17, Conti 1 Heat Plant, however no flow was observed. The exhaust from this heat plant is now diverted back into the Conti 1 production system.

The former Jeldwen plant (surrendered EPL 11172) is not operational, and as such now EPA 3035 Identification Points 18 (press exhaust vents discharge) and 19 (dryer stack) are dormant.

EPA Identification Points 12, 13 and 18 are monitored every three (3) years and are not due for sampling again until 2018.

Todoroski Air Sciences (February 2017) prepared an *Air Quality Impact Assessment* for the expansion of the Borg Panels facility as part of the Environmental Impact Statement for the Project. The proposed modification will redirect additional emissions to EPA Identification Point 11, thus the existing EPA licence limit for TSP will require amendment to reflect the revised stack configuration. As this modification has not yet been constructed, EPA Identification Point 11 met current licence limits and the modelling predictions.

4.4 Surface Water

The existing surface water management system includes runoff from adjoining properties in the Oberon Timber Complex on the western side of Lowes Mount Road, and operates as follows:

- Runoff from the Carter Holt Harvey facility flows across Lowes Mount Road and is directed onto the site in a ‘dirty’ water swale.
- Clean water from rural undeveloped parts of Lowes Mount Road is also directed onto the site in a ‘clean’ water swale, which runs alongside the dirty water swale.
- Borg Panels roof runoff and runoff from the western side of the facility is directed into the dirty water swale and then conveyed into an existing stormwater treatment pond.
- Runoff from the eastern and open parts of the site, which contains fine fibrous wood material, is directed first to a gross pollutant trap and then into the stormwater treatment pond.

Figure 3 shows the existing surface water management system for the Borg Panels site.

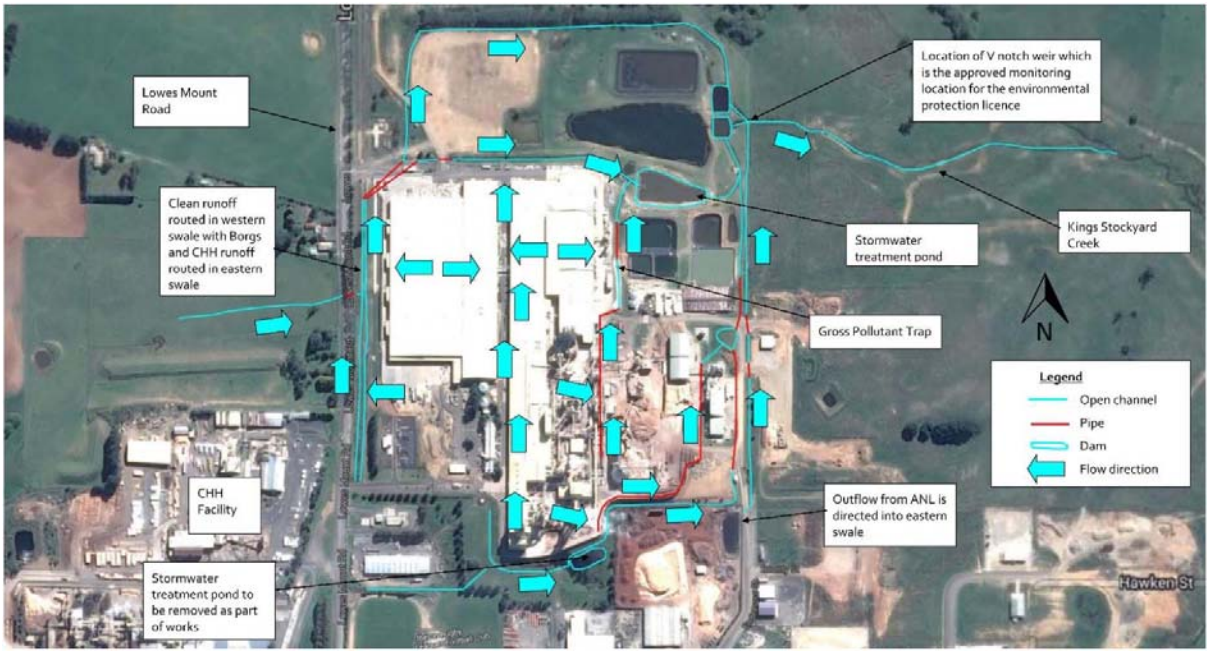


Figure 3 – Existing Surface Water Management System

In accordance with EPL 3035, Borg Panels monitor discharge from the 'v'-notch weir (EPA Identification Point 1) to the unnamed creek that discharges to Kings Stockyard Creek. The location of the 'v'-notch weir on the outflow of the southern dam is shown on **Figure 3**.

The concentration of a pollutant discharged from the 'v'-notch weir must not exceed the water concentration limits specified in **Table 30**. Monitoring must be undertaken weekly during any discharge.

Table 30 – Water Concentration Limits EPA Identification Point 1

Pollutant	Units of Measure	50 percentile concentration limit	100 percentile concentration limit
Aldrin	µg/L		0.3
Biochemical Oxygen Demand (BOD)	mg/L		20
Colour	Hazen	80	160
Dieldrin	µg/L		0.3
Methylene Blue Active Substances (MBAS)	mg/L		0.5
Nitrogen (Total)	mg/L		10
Oil and Grease	mg/L		10
pH	pH		6.5-8.5
Phosphorus (Total)	mg/L		0.3
Total Suspended Solids	mg/L		50

Water samples were collected by trained personnel, and analysed by NATA certified laboratories.

Table 31 provides a summary of Borg Panels annual average water monitoring results for discharge from the 'v'-notch weir during the reporting period and for the previous reporting period. Full results for the 2016-17 reporting period are provided in **Appendix B**.

Table 31 – Annual Average Water Monitoring Results EPA Identification Point 1

Pollutant	Units of Measure	2015-16	2016-17
Aldrin	µg/L	0	0
Biochemical Oxygen Demand (BOD)	mg/L	9.3	3.4
Colour	Hazen	58.8	63.6
Dieldrin	µg/L	0	0
Methylene Blue Active Substances (MBAS)	mg/L	0.1	0.1
Nitrogen (Total)	mg/L	3.3	3.1
Oil and Grease	mg/L	4.4	0
pH	pH	7.7	7.6
Phosphorus (Total)	mg/L	0.1	0.1
Total Suspended Solids	mg/L	20.2	13.6

A total of 18 samples were collected and analysed during the 2016-17 reporting period. Two exceedances of EPL limits occurred during this reporting period.

A minor exceedance of Methylene Blue Active Substances occurred on 12 May 2016. The EPL limit for MBAS is 0.5 mg/L and the monitored result was 0.7 mg/L. Conditions at the time of the exceedance included recent heavy rainfall (34.4mm in 3 days), low flow at the 'v'-notch weir, and observed catchment water being grey and turbid at the time of sampling. No unusual activity was found to have been occurring at the time of the exceedance. As such, the cause of the exceedance was not determined. It is noted that no further exceedances of MBAS occurred during the reporting period.

Additionally, a minor exceedance of Total Suspended Solids occurred on 23 March 2017. The EPL limit for TSS is 50 mg/L and the monitored result was 62 mg/L. The TSS exceedance followed a long dry period with no discharge. The previous discharge from site was 7 December 2016. Investigations determined a potential build-up of particles across the site and their subsequent washing into the first flush basin may have contributed to the exceedance. It is noted that a street sweeper regularly sweeps the internal site roads and warehouses to remove particles from hard surfaces potentially limiting such exceedances.

The Sustainability Workshop (May 2016) prepared a *Water Cycle Impact Assessment* for the expansion of the Borg Panels facility as part of the Environmental Impact Statement for the Project. Further information was also provided as part of the Response to Submissions (Sustainability Workshop, September 2016). It was determined the existing 'v'-notch weir would not be impacted by the expansion and that maximum discharge concentrations would be below current EPL limits. With the exception of the two exceedances detailed above, all EPL limits were met during the reporting period.

4.5 Groundwater

In accordance with EPL 3035, Borg Panels monitor groundwater bores. The locations of groundwater monitoring points are listed in **Table 32**.

Table 32 – Location of Groundwater Monitoring Bores

EPA Identification No.	Location Description
14	North western boundary of site
15	East of stormwater treatment pond
16	East of Woodchem
24	North of western end of Spring dam

Water samples were collected by trained specialists and analysed by NATA certified laboratories. This work is carried out in accordance with statutory requirements and relevant standards. Monitoring equipment is maintained in accordance with the manufacturers specifications by qualified specialists.

Tables 33-36 present results for EPA Identification Points 14, 15, 16 and 24 during the reporting period and for the previous reporting period.

Table 33 – Groundwater Monitoring Results EPA Identification Points 14 (GW05)

Pollutant	Unit of Measure	Frequency	2015-16	2016-17
Aldrin	µg/L	Yearly	<0.5	<0.5
Ammonia as N	mg/L	Yearly	<0.07	0.06
Chemical Oxygen Demand	mg/L	Yearly	<10	<10
Electrical Conductivity	µS/cm	Yearly	333	362
Dieldrin	µg/L	Yearly	<0.5	<0.5
Formaldehyde	mg/L	Yearly	<0.1	0.1
pH	pH Units	Yearly	7.4	7.66
Total Dissolved Solids	mg/L	Yearly	202	188
Total Organic Carbon	mg/L	Yearly	<1	1
Total Petroleum Hydrocarbons	µg/L	Yearly	<50	<50
Total Suspended Solids	mg/L	Yearly	31	31
Water Height	m	Yearly	6.48	6.53

Table 34 – Groundwater Monitoring Results EPA Identification Points 15 (GW02)

Pollutant	Unit of Measure	Frequency	2015-16	2016-17
Aldrin	µg/L	Yearly	<0.5	<0.5
Ammonia as N	mg/L	Yearly	<0.01	0.08
Chemical Oxygen Demand	mg/L	Yearly	<10	56
Electrical Conductivity	µS/cm	Yearly	1071	1007
Dieldrin	µg/L	Yearly	<0.5	<0.5
Formaldehyde	mg/L	Yearly	<0.1	0.1
pH	pH Units	Yearly	7.06	7.01
Total Dissolved Solids	mg/L	Yearly	585	714
Total Organic Carbon	mg/L	Yearly	2	6
Total Petroleum Hydrocarbons	µg/L	Yearly	<50	<50
Total Suspended Solids	mg/L	Yearly	87	168
Water Height	m	Yearly	2.76	3.05

Table 35 – Groundwater Monitoring Results EPA Identification Points 16 (GW01)

Pollutant	Unit of Measure	Frequency	2015-16	2016-17
Aldrin	µg/L	Yearly	<0.5	<0.5
Ammonia as N	mg/L	Yearly	<0.01	0.04
Chemical Oxygen Demand	mg/L	Yearly	<10	130
Electrical Conductivity	µS/cm	Yearly	214	150
Dieldrin	µg/L	Yearly	<0.5	<0.5
Formaldehyde	mg/L	Yearly	<0.1	0.6
pH	pH Units	Yearly	6.51	7.31
Total Dissolved Solids	mg/L	Yearly	138	350
Total Organic Carbon	mg/L	Yearly	2	15
Total Petroleum Hydrocarbons	µg/L	Yearly	<50	<50
Total Suspended Solids	mg/L	Yearly	388	410
Water Height	m	Yearly	1.66	1.66

Table 36 – Groundwater Monitoring Results EPA Identification Points 24 (GW26)

Pollutant	Unit of Measure	Frequency	2015-16	2016-17
Aldrin	µg/L	Yearly	<0.5	<0.5
Ammonia as N	mg/L	Yearly	<0.01	0.05
Chemical Oxygen Demand	mg/L	Yearly	<10	<10
Electrical Conductivity	µS/cm	Yearly	2190	376
Dieldrin	µg/L	Yearly	<0.5	<0.5
Formaldehyde	mg/L	Yearly	<0.1	0.1
pH	pH Units	Yearly	6.51	7.27
Total Dissolved Solids	mg/L	Yearly	112	228
Total Organic Carbon	mg/L	Yearly	<1	2
Total Petroleum Hydrocarbons	µg/L	Yearly	<50	<50
Total Suspended Solids	mg/L	Yearly	137	31
Water Height	m	Yearly	1.42	1.97

At EPA Point 15 there was an increase in chemical oxygen demand from <10 in the 2015-16 reporting period to 56 this reporting period. Chemical oxygen demand is a measure of the capacity of the water to consume oxygen during the decomposition of organic matter and the oxidation of inorganic chemicals such as ammonia and nitrite.

Additionally, there was a noted increased in chemical oxygen demand at EPA Point 16 from <10 in the 2015-16 reporting period to 130 this reporting period. Total dissolved solids also increased from 138 in 2015-16 to 350 this reporting period at EPA Point 16.

At EPA Point 24 electrical conductivity decreased from 2190 in the 2015-16 reporting period to 376 this reporting period. The water level in EPA Point 24 had dropped by just over 0.5 metres since the previous sample.

There are no EPL concentration limits for groundwater monitoring bores.

The Sustainability Workshop (May 2016) prepared a *Water Cycle Impact Assessment* for the expansion of the Borg Panels facility as part of the Environmental Impact Statement for the Project. The report found the Project was likely to reduce any existing risk of groundwater contamination from an accidental spill due to the comprehensive spill management approach with numerous additional critical control points proposed. The Project will also rely on existing water access licence entitlements held by Borg Panels and does not propose additional alteration or extraction to any groundwater sources.

4.6 Noise

In accordance with EPL 3035, Borg Panels monitor noise emissions from the plant. Noise from the premises must not exceed the limits on **Table 37**.

Table 37 – Noise Limits dB(A)

Location	Day $L_{Aeq(15\ minute)}$	Evening $L_{Aeq(15\ minute)}$	Night $L_{Aeq(15\ minute)}$
All sensitive receivers	55	50	45

Note: Day – The period from 7:00am to 6:00pm on Monday to Saturday, and 8:00am to 6:00pm on Sundays and Public Holidays
Evening – The period from 6:00pm to 10:00pm
Night – The period from 10:00pm to 7:00am on Monday to Saturday, and 10:00pm to 8:00am on Sundays and Public Holidays
L_{Aeq} means the equivalent continuous noise level – the level of noise equivalent the energy-average of noise levels occurring over a measurement period.

To determine compliance with the noise limits specified in **Table 37**, noise must be measured at or computed for Oberon High School or any other noise sensitive locations (such as a residence/school). A modifying factor correction must be applied for tonal, impulsive or intermittent noise in accordance with the *NSW Industrial Noise Policy* (EPA, January 2000).

The noise limits set out in **Table 37** apply under all meteorological conditions except for the following:

a) Wind speeds greater than 3 meters/second at 10 metres above ground level; or
b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
c) Stability category G temperature inversion conditions.

Data recorded by the meteorological station identified as EPA Identification Point 26 must be used to determine meteorological conditions. Temperature inversion conditions (stability category) are to be determined by the sigma-thetas method referred to in Part E4 of Appendix E to the *Industrial Noise Policy* (EPA, January 2000).

Noise monitoring to determine compliance must be carried out at least once annually during the day, evening, and night time hours specified in **Table 37** at Oberon High School or at the nearest residence. Noise monitoring must be undertaken in accordance with *Australian Standard AS 2659.1 (1998) Guide to use of sound measuring equipment – portable sound level meters*, and the compliance monitoring guidance provided in the *NSW Industrial Noise Policy*.

During the 2016-17 reporting period an *Environmental Noise Survey 1 May – 31 July 2016* (Borg Panels, August 2016) for the Borg Panels facility was undertaken. The purpose of the study was to measure and quantify the influence of Borg Panels mobile wood chippers on the overall ambient noise levels measured at noise sensitive receptors. Furthermore, the survey monitored compliance with EPL licence limits under varying meteorological conditions. The survey was undertaken by continuous unattended noise logging and attended measurements.

Key findings of the survey were, over the three month monitoring period:

- The mobile wood chippers were found to have no discernible impact on Oberon Timber Complex's compliance with the established EPL limits; and

- The noise monitoring survey confirmed that the Oberon Timber Complex was compliant with the Borg Panels EPL noise limits approximately 98% of the time. The survey included all noise from the Oberon Timber Complex and other industries located within the industrial zone, not just noise generated by the Borg Panels facility.

Attended monitoring was undertaken at Jenolan Caravan Park on numerous occasions as detailed in **Table 38**. Jenolan Caravan Park is located to the west and opposite Oberon High School and is considered representative of measurements for Oberon High School.

Table 38 – Attended Noise Monitoring $L_{Aeq(15\ minute)}$ Jenolan Caravan Park

Date	Day $L_{Aeq(15\ minute)}$	Evening $L_{Aeq(15\ minute)}$	Night $L_{Aeq(15\ minute)}$
3 May 2016	48.16	47.30	42.33
11 May 2016	49.07	47.11	**45.35**
21 May 2016	45.55	42.83	44.73
4 June 2016	52.98	45.84	43.90
16 June 2016	47.10	45.60	**47.21**

The *Industrial Noise Policy* (EPA, January 2000) deems a development to be in non-compliance with its noise consent / licence conditions if the monitored noise levels exceed its statutory noise limit by more than 2 dB. On this basis, there was one marginal exceedance of night time EPL limits on 16 June 2016. Day and evening periods were within EPL limits on all monitoring occasions.

The study recognised noise levels to be just within EPL limits and any future modifications to operations would require noise attenuation to remain compliant.

Global Acoustics (May 2016) prepared a *Noise and Vibration Impact Assessment* for the expansion of the Borg Panels facility as part of the Environmental Impact Statement for the Project. The assessment considered impacts associated with noise emission from the existing site, and the proposed expansion. Potential impact from operational noise, low frequency noise, sleep disturbance, cumulative noise, construction noise and road traffic noise were assessed. A model validation assessment was undertaken to provide an estimate of model prediction accuracy.

To remain compliant with EPL noise limits during construction and operation of the Project, Borg Panels recognise the need to limit operation of the mobile wood chipper and provide further noise attenuation to new and existing plant. A Mobile Wood Chipper Operation Management Plan has been prepared and implemented.

4.7 Independent Environmental Audit

The next Independent Environmental Audit for Borg Panels is due to be commissioned prior to 29 May 2018.

5 Community Relations

5.1 Environmental Complaints

Borg Panels Environmental Management Plan includes a procedure for receiving, investigating, responding and reporting complaints received from the community. A 24 hour a day, 7 day a week, free call number 1800 802 795 is operated to receive environmental complaints and other enquiries.

Twenty four complaints were received in total during the reporting period. Of these, twenty one were noise related, two dust related and one odour related. Twenty one complaints were made by one complainant, the remaining three complaints were anonymous.

The number of complaints received has increased from the previous reporting period, in which fourteen noise complaints were recorded.

A summary of all complaints received during the reporting period is provided in **Appendix C**.

5.2 Community Liaison

5.2.1 Community Consultative Committee (CCC)

Borg has an established joint Community Consultative Committee (CCC) that meets nominally quarterly to discuss environmental and operational aspects of the Borg Panels site and greater Oberon Timber Complex. During the reporting period three CCC meetings were held on the following dates:

- 4 May 2016
- 29 September 2016
- 22 March 2017

The CCC meetings are used as a forum to discuss and address general construction and operational impacts and mitigation measures for the Borg Panels facility. The CCC meetings also provide a forum for feedback to Borg Panels in relation to the environmental management of the facility.

The major discussion points relating to Borg Panels in 2016-17 were:

- Noise associated with the facility, particularly the mobile wood chippers;
- Regular updates on the progress of the Particle Board Plant major project approval application;
- Regular updates on safety performance for the facility;
- Production and performance updates; and
- The use of overseas tradesmen for construction of the Particle Board Plant where these positions are unable to be filled by the current Australian workforce.

5.2.2 Other Consultation

Borg Panels representatives made presentations at the Oberon Business and Tourism Association meetings. These presentations included updates on the progress of the Particle Board Plant major project approval application.

5.2.3 Opportunities for Information Exchange

Borg has in place the following avenues to register inquiries and complaints related to construction and operational activities:

- A 24-hour freecall community liaison line (1800 802 795)
- Postal address for written complaints (Borg Panels, Private Mail Bag 1, Oberon NSW 2787)
- Email address for electronic complaints (oberon_site@borgs.com.au)

The telephone number, postal and email address is clearly displayed on a sign near the entrance to the site, in a position that is clearly visible to the public. This information is also widely disseminated in the community and included in public information communications, which may include the website, local area advertisements, letterbox notifications and Project specific fact sheets.

6 Environmental Incidents

Environmental incidents are recorded in DataStation, Borgs Panels incident management system. Each incident report details the issue, the corrective and preventative actions taken, and the responsibilities and timing for completion of the actions. The report includes any comments and the completion date of corrective actions.

During the reporting period there we no reportable environmental incidents that occurred at the Borg Panels facility. A reportable environmental incident is defined as an incident causing or threatening material harm to the environment. As Borg Panels hold an Environment Protection Licence (EPL), the incident response measures are detailed in the site Pollution Incident Response Management Plan (PIRMP).

7 Activities Proposed for the next Annual Review Period

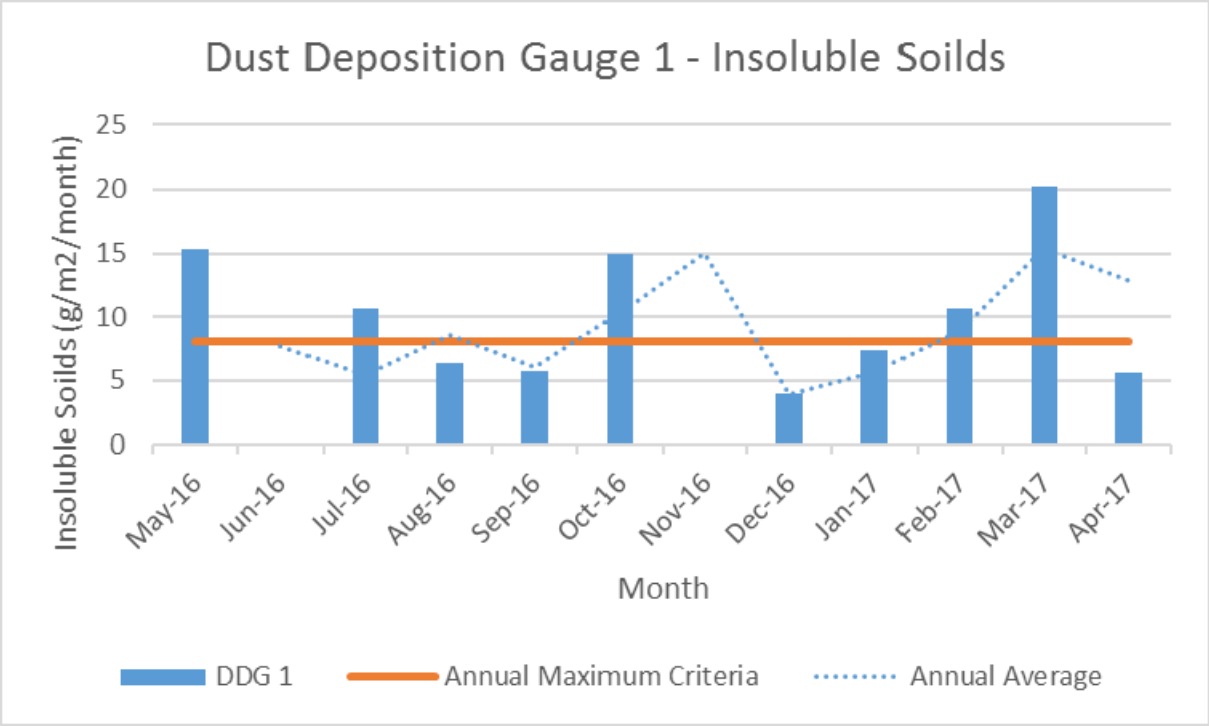
Borg Panels will endeavour to carry out the following activities during the 2017-18 reporting period, as outlined in **Table 39**.

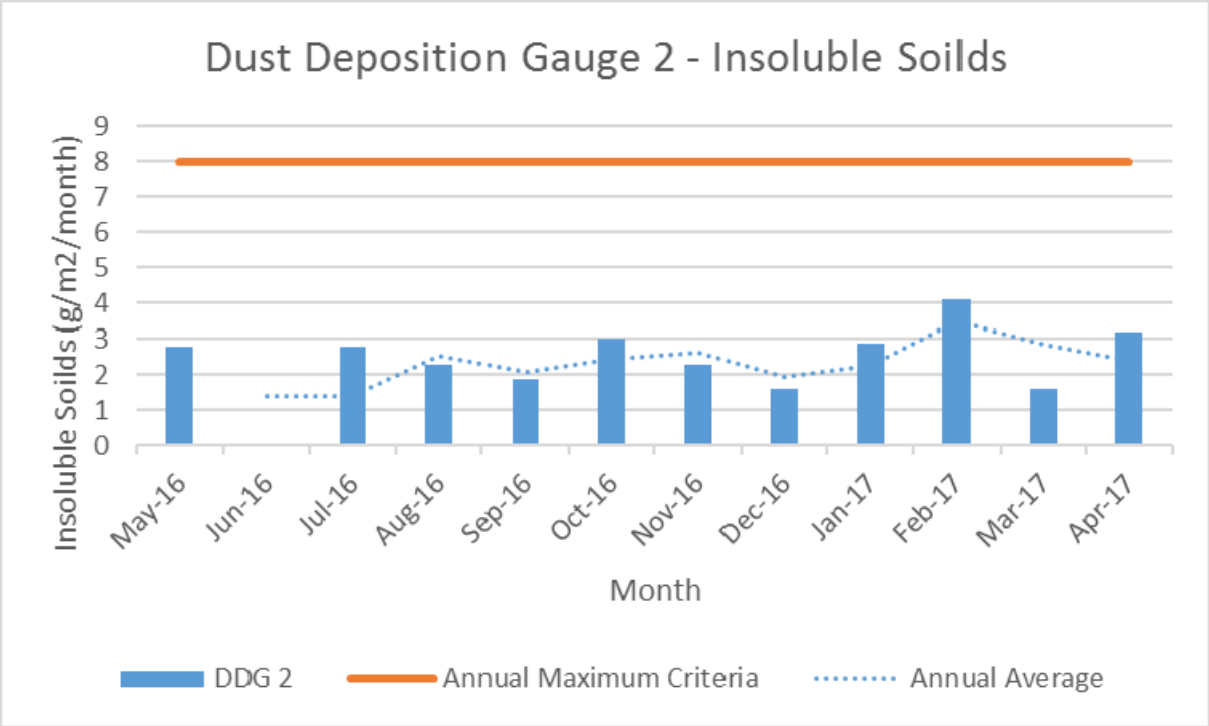
Table 39 – Proposed Activities for 2017-18 Reporting Period

	Activities Proposed in 2017-18 Reporting Period
1	Preparation of an Operational Environmental Management Plan for the existing development, including: • Operational Air Quality Management Plan • Operational Noise Management Plan • Mobile Wood Chipper Operation Management Plan • Surface Water Management Plan • Waste Management Plan
2	Convection Bundle for Esteel energy centre planned for replacement in December 2017
3	Construction of: • Particleboard Plant • Upgrade to electric chipper and chip conveyors • Crane Building 3 • New Press Building • Fill southern dam ready for construction • Swales upgrade around southern boundary • New lunchroom within T&D area • Construct new office entry, meeting rooms, gym and shower block
4	On-going site remediation of the disused fuel depot at Lot 1 DP 1085563, monitoring and site validation.

Appendices

Appendix A – Depositional Dust Monitoring Data


Dust Deposition Gauge 1 - Insoluble Soilds
Insoluble Soilds (g/m2/month)
25
20
15
10
5
0
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
Apr-17
Month
DDG 1
Annual Maximum Criteria
Annual Average


Dust Deposition Gauge 2 - Insoluble Soilds
Insoluble Soilds (g/m2/month)
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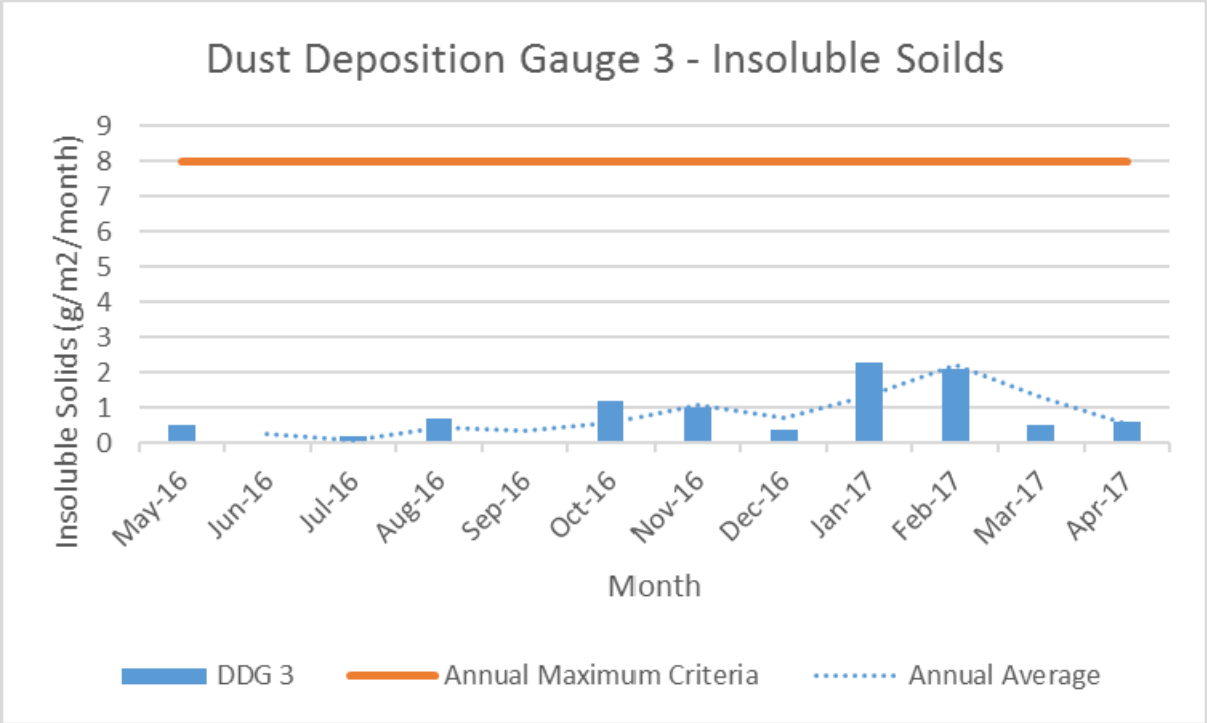
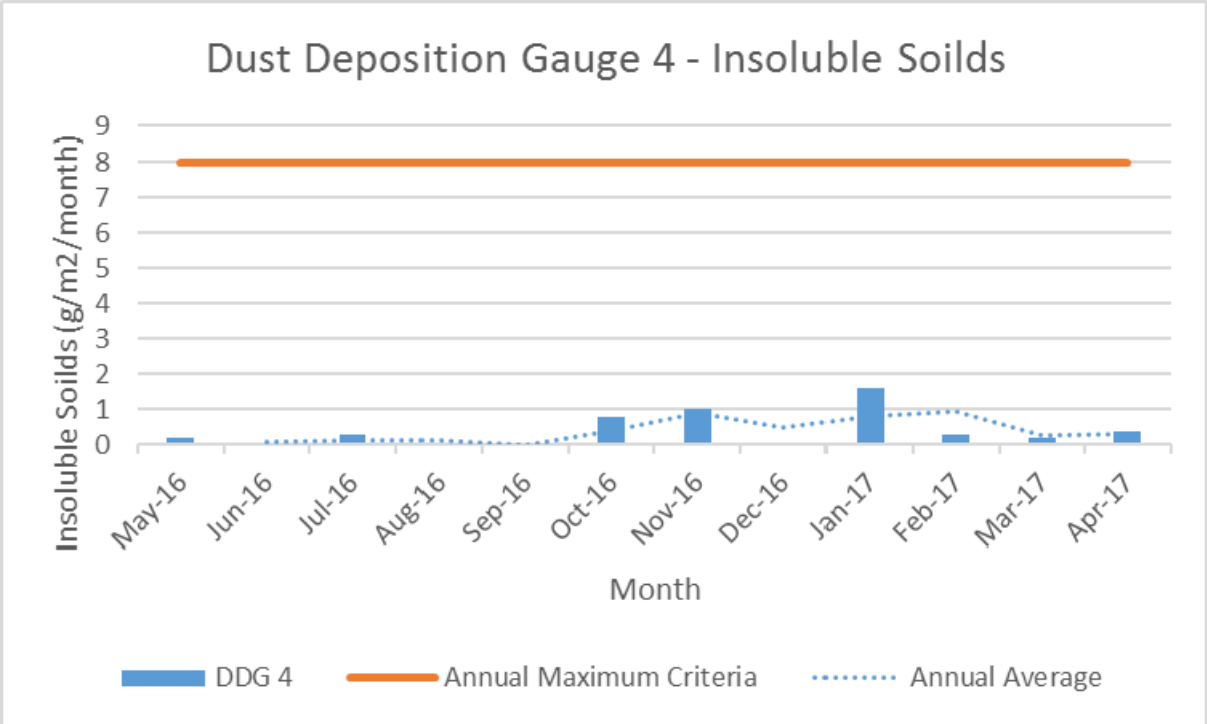
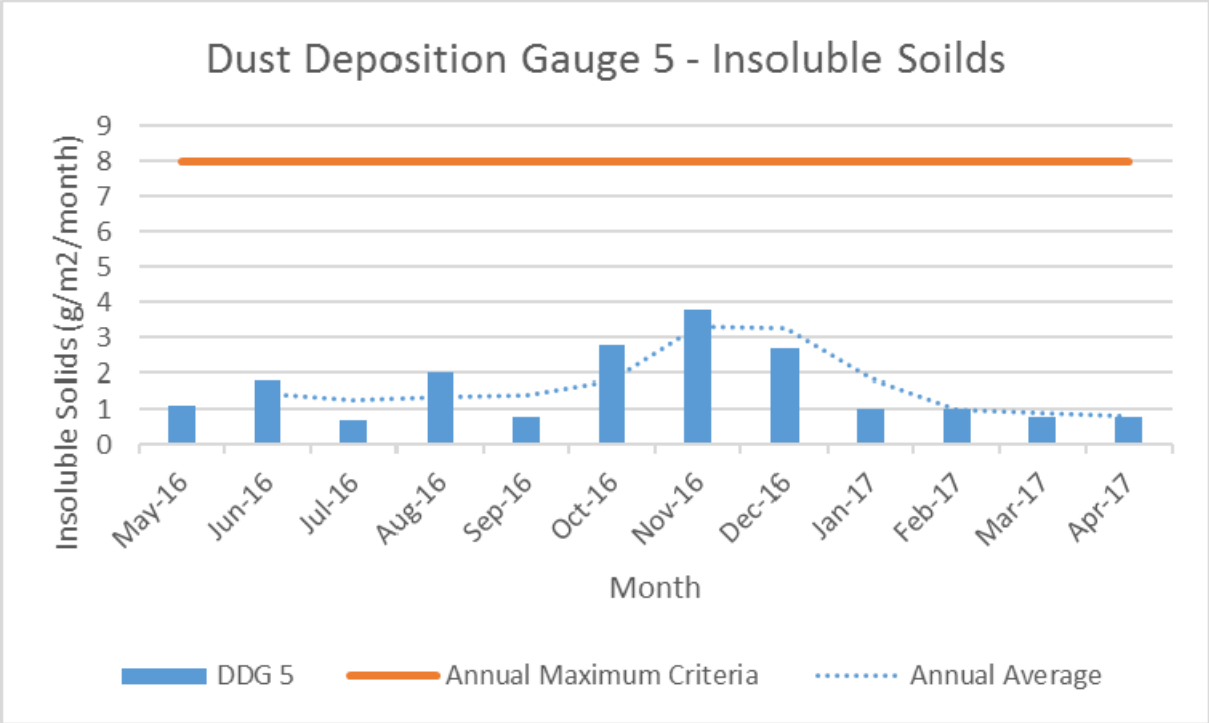
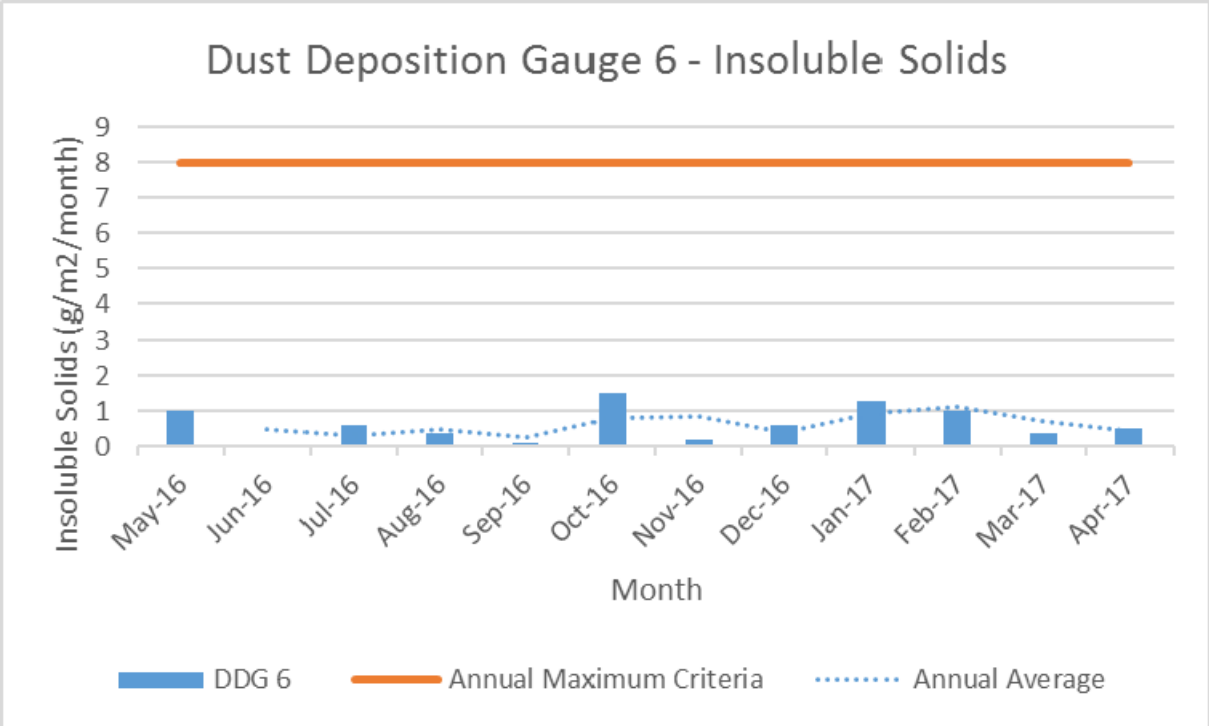
8
7
6
5
4
3
2
1
0
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
Apr-17
Month
DDG 2
Annual Maximum Criteria
Annual Average


Dust Deposition Gauge 3 - Insoluble Soilds
Insoluble Solids (g/m2/month)
9
8
7
6
5
4
3
2
1
0
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
Apr-17
Month
DDG 3
Annual Maximum Criteria
Annual Average


Dust Deposition Gauge 4 - Insoluble Soilds
Insoluble Soilds (g/m2/month)
9
8
7
6
5
4
3
2
1
0
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
Apr-17
Month
DDG 4
Annual Maximum Criteria
Annual Average


Dust Deposition Gauge 5 - Insoluble Soilds
Insoluble Solids (g/m2/month)
9
8
7
6
5
4
3
2
1
0
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
Apr-17
Month
DDG 5
Annual Maximum Criteria
Annual Average


Dust Deposition Gauge 6 - Insoluble Solids
Insoluble Solids (g/m2/month)
9
8
7
6
5
4
3
2
1
0
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
Apr-17
Month
DDG 6
Annual Maximum Criteria
Annual Average

Appendix B – Surface Water Monitoring Data

EPA Discharge & Monitoring Point 1 – 2016-17 Monitoring Results

DATE OF SAMPLE	Aldrin	BOD	True Colour	Dieldrin	MBAS	Total N	Oil & Grease	pH	Total P	TSS
12-May-16	<0.01	11	100	<0.01	**0.7**	6.1	<5	7.62	0.2	28
25-Jul-16	<0.01	<2	50	<0.01	0.2	3.8	<5	7.42	0.07	35
28-Jul-16	<0.01	10	60	<0.01	0.2	2	<5	7.85	0.03	18
11-Aug-16	<0.01	3	80	<0.01	<0.01	1.9	<5	7.63	0.03	8
18-Aug-16	<0.01	<2	60	<0.01	<0.01	1.8	<5	7.52	0.04	<5
07-Sep-16	<0.01	3	60	<0.01	0.2	1.9	<5	7.41	0.03	6
14-Sep-16	<0.01	3	50	<0.01	0.1	1.4	<5	7.78	0.03	<5
22-Sep-16	<0.01	3	55	<0.01	<0.01	1.8	<5	7.09	0.05	24
06-Oct-16	<0.01	5	60	<0.01	<0.01	2.5	<5	7.87	0.03	9
13-Oct-16	<0.01	4	80	<0.01	0.1	3	<5	7.91	0.04	<5
20-Oct-16	<0.01	<2	60	<0.01	<0.01	4.3	<5	7.6	0.06	<5
27-Oct-16	<0.01	3	60	<0.01	0.2	3	<5	7.8	0.05	8
03-Nov-16	<0.01	5	65	<0.01	0.1	4.5	<5	7.93	0.03	<5
16-Nov-16	<0.01	5	60	<0.01	0.2	3.6	<5	7.53	0.04	12
30-Nov-16	<0.01	<2	80	<0.01	0.2	3	<5	7.57	0.11	16
07-Dec-16	<0.01	<2	40	<0.01	<0.01	0.5	<5	7.78	<0.01	5
23-Mar-17	<0.01	<2	80	<0.01	<0.01	6.6	<5	7.19	0.22	**62**
04-Apr-17	<0.01	<2	45	<0.01	0.2	4.1	<5	7.23	0.06	14

Appendix C – Community Complaints

Borg Panels Community Complaints Register 2016-17

Complaint No	Category	Date	Property	Detail	Follow Up Actions
1	Noise	05/05/16	Jenolan Caravan Park	Reported noise "like grain going down a chute"	Reviewed noise logger data and weather data. Noise reported not audible on noise monitor. Noise limits were met at time of compliant.
2	Noise	07/05/16	Jenolan Caravan Park	Banging metallic noise heard - unknown source	Noise logger checked and show noise limits were met. The metallic banging can be heard in audio - unclear as to source. Horace street logger shows no spike in noise levels and metallic banging is not as audible.
3	Noise	13/06/16	Jenolan Caravan Park	Borgs very noisy tonight	Data shows compliance. Wind conditions very still, with only a small southerly blowing. Noise logger at Caravan Park down. However, noise levels recorded at Horace Street indicate noise levels at Caravan Park would be below noise limit.
4	Noise	16/06/16	Anonymous	During early morning, noise coming from OTC that caller had not heard before	Weather data shows a strong inversion layer in the early morning - carrying noise from OTC further into town than usual. Inversion layer allows for lenience on noise limits.
5	Noise	24/06/16	Jenolan Caravan Park	Kept awake throughout the night due to noise coming from HPP and Borg	Noise logger checked along side meteorological conditions. Noise levels are above noise limits consistently due to extremely strong wind conditions. Strong winds allow for lenience in noise limits
6	Noise	30/06/16	Jenolan Caravan Park	Generally loud throughout the night - unclear as to which site was causing the noise	Gathered data from noise logger. Shows that noise levels were above noise limits with a strong wind coming from the WNW. Meteorological conditions allow for lenience in noise limits.

Complaint No	Category	Date	Property	Detail	Follow Up Actions
7	Noise	05/07/16	Jenolan Caravan Park	Loud Noise from 22:00 - 0300 4/7-5/7. Not sure where from. Smoke from site over caravan park throughout 4/7/16. Caller phoned EPA as well.	Horace Street noise monitor shows steady noise output from Borg. Noise levels recorded during complaint period show levels consistent to those shown during times of compliance. Very still conditions during complaint hours. Overall OTC background hum louder as a result of these met conditions - averaging 2dB over limit. No single plant evidently making the noise.
8	Noise	06/07/16	Jenolan Caravan Park	Squeaking/squeaking noise like before but wasn't sure whether it was HPP or Borg	Noise logger data analysed. Found noise levels were within limit. Wind Direction was a SW wind at 3.06m/s
9	Noise	10/07/16	Anonymous	Borg was especially loud during the morning	Noise data from Caravan Park shows that Borg Panels was well within noise limits. Met conditions show that there was lenience in noise limits due to wind.
10	Noise	16/07/16	Jenolan Caravan Park	Loud banging and clanging from Borgs	Caravan Park data analysed. Shows noise levels were within noise limits during time of complaint.
11	Noise	09/08/16	Jenolan Caravan Park	Loud Noise. Not sure where it is coming from	Logger located at Horace street shows that noise levels being emitted by Borg at time of complaint are consistent with previous data showing compliance at Caravan Park. Met conditions during the time of the complaint also allow lenience in noise limits as wind speed was > 3m/s

Complaint No	Category	Date	Property	Detail	Follow Up Actions
12	Noise	14/08/16	Jenolan Caravan Park	Lots of noise - from lift and tip trucks, loaders. Could not tell where is was coming from. Highland pine had a major breakdown resulting in chip supply shortages. Structafloor was operating a truck and loader in the Borg yard to ensure chip continuity for the operation. Loader and truck making excessive noise.	Noise graph from Borg premises indicates that Borg was compliant during the time of the complaint - although a slight noise increase can be seen prior to complaint. A new maintenance truck has not had its high frequency beeper replaced with a low frequency. This may have been the cause of complaint. Borg has since replaced this reverse beeper. Investigating the source of the tip truck and loader sounds.
13	Dust	17/08/16	Via EPA Environment Line	Complainant has identified contaminant on outdoor surfaces which they believe are being blown in from the North from Borg Panels. Have indicated this has occurred previously.	Investigate process and met data. Wind rose reviewed. Operator advised issues on Conti 1, but there was no discharge of fibre from any blockages. Conti fibre bin height controls implemented.
14	Noise	30/08/16	Jenolan Caravan Park	2 noise complaints at 19:27 and 21:40. Complaint 1: Banging Noise (like a hammer) Complaint 2: Chipper at Borg	Noise data gathered from Horace Street logger. Banging noise was identified as the workshop. There was no chipper running at time of second complaint. During times of complaint, Borg was found to be within the noise levels indicating compliance within town.

Complaint No	Category	Date	Property	Detail	Follow Up Actions
15	Noise	09/09/16	Jenolan Caravan Park	Borg's plant was especially noisy tonight	Noise Loggers at L2 (Hogan's) and L5 (Cunnyngham Street) were checked. At time of Complaint ± 1 hour wind speed too high. No Breach of Noise Limits evident. Wind direction swinging between East and North North East
16	Noise	09/11/16	Jenolan Caravan Park	Noise Complaint from Caravan Park, via hotline, received at Gate 3 at 8:40 am, complaint forwarded to Borg at 10:20 am. Noise coming from Borg Mill excessive	Noise measurement taken at Ross Street Cul de Sac at 11:40 am, when made aware of complaint. Reading at that time 53.3 dB LAeq Wind had moved to more westerly by this stage. Wind at time of complaint was at 40-60° (north easterly, moving to 300° (north westerly) immediately after. Wind speed about 5 km/h. Mobile Chipper running from 8 am that morning. Dozer running near gate 4 from 7 am but did not appear to contribute significantly. Mobile chipper main contributor. Presses running normal before during and after complaint. Mobile shipper to be shutdown on northerly winds.
17	Noise	02/12/16	Jenolan Caravan Park	Very noisy last night	Noise graph using Horace street logger has above limits from 22:00 1/12/2016 to 1:00 am 2/12/2016 by up to 2 dB. Wind Speed very low. Wind previous from W-WSW then when it dropped to be essentially still it swung to ESE. All doors closed at press. ANL was running that night. No chippers or shredders running from 4 pm. Presses had no shutdowns for entire night, on same product all night.

Complaint No	Category	Date	Property	Detail	Follow Up Actions
18	Noise	03/12/16	Jenolan Caravan Park	Noisy from 4am to 5:15 am. Described as constant with steam release. Described as coming from Borgs	Investigate noise. Response from Press Coordinator attached, Conti 2 down during that period but the heat plant began starting up at 4:00 am. Noise Graph has us within 1 dB of calculated limit at Horace Street, that is acceptable.
19	Noise	13/12/16	Jenolan Caravan Park	Both Borg's and Sawmill Site are Very Noisy	Banging described and investigated. Workshop door had the following conditions on night of complaint: door was open till 9pm evening of the 13/12/16; after that closed till 9:30pm; open at 1m high for 10minutes; closed 10pm; open for 5minutes 11:50; open for 10 minutes; Closed afterwards. Checked Horace Street Logger, approximately 10 decibels below calculated limits. Met Data not gathered.
20	Noise	13/01/17	Jenolan Caravan Park	Hammering steel	Wind speed at time of complaint for noise at 22:30 to high for measurement. Roller door was opened at 10:30pm in the workshop. Noise after 5 am high, Conti 2 down and NO log yard activity until 6:30 when electric chipper started, then at 7:15 when shredder and field chipper started. Noise level when mobile chipper and shredder operating indeterminate due to wind speed.
21	Dust	13/01/17	Jenolan Caravan Park	Outside chipper causing dust	Dust complaint associated with shredder, wind from NNW-NW during its operation, unlikely to be source of dust.
22	Noise	18/01/17	Jenolan Caravan Park	Noise last night	Data from Noise Loggers at high school and Horace street and weather station retrieved. Listened to wave file around time of peak activity. Noise level high but contribution from Borg Panels not clear due wind direction and noise levels being below acceptable calculated levels at Horace street.

Complaint No	Category	Date	Property	Detail	Follow Up Actions
23	Odour	18/01/17	Jenolan Caravan Park	Chemical Smell - unsure of what it is, funny taste on tongue - headache	Investigated complaint, all coordinators reported that there were no incidents that could cause an odour the previous 24 hours. Night shift coordinator confirmed no odour up until at least 9:30 pm Drove around site, no odour present. Information received via CHH is that the complainant reported the smell was like formaldehyde. Wind direction during night was easterly and west north westerly, first half of night quite still. There is no evidence of such an odour being emitted by Borg or Woodchem. Note: It was reported that ANL bark pile was smouldering Further details from complainant was smell at 8:00am 18/1/2017, most likely coming from west-north west. Wind direction at time 290° at weather station.06/02/16

Complaint No	Category	Date	Property	Detail	Follow Up Actions
24	Noise	06/02/17	Jenolan Caravan Park	Noisy through early hours of the morning	Noise at high school shows above limits for some periods before 2:30 am, then a period of quiet until 4 am where it increases significantly. The early high noise level does not correlate at all with the Horace street logger – noise not from our area, it also sounds like the log deck and HPP chipper. Wind was from North West The noise level in town jumps between 4:00 am and 4:10 am, and there is a corresponding jump at Horace street, listening to the noise recorded. It is a large turbo diesel and nothing that we have to make that sound was operational then. Likely to be ANL. The noise jumps again around 6:30am, this seems to be mostly local bird noises at sunrise and traffic. We also started our chipper about then but can't really hear it on the town logger. Local noise logger says we were stable and within limits until ANL started.