

**FINAL**

## **Surface Water Management Plan**




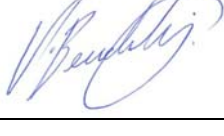
### **Borg Panels**

124 Lowes Mount Road, Oberon NSW

Borg Panels Pty Ltd

13 December 2017

## Revision History

Rev No.	Revision Date	Author / Position	Details	Authorised	
				Name / Position	Signature
0	06/09/17	Carly McCormack Planning and Environmental Officer	Draft	Victor Bendevski Environmental and Regulatory Compliance	
1	03/10/17	Carly McCormack Planning and Environmental Officer	Final Draft for Consultation with DPI	Victor Bendevski Environmental and Regulatory Compliance	
2	08/11/17	Carly McCormack Planning and Environmental Officer	Final Draft for Consultation with EPA	Victor Bendevski Environmental and Regulatory Compliance	
3	21/11/17	Carly McCormack Planning and Environmental Officer	Final	Victor Bendevski Environmental and Regulatory Compliance	
4	13/12/17	Carly McCormack Planning and Environmental Officer	Final Incorporating DP&E Comments	Victor Bendevski Environmental and Regulatory Compliance	

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# 1 Introduction

## 1.1 Background

Borg Panels operates an existing Medium Density Fibreboard (MDF) manufacturing facility in Oberon, NSW. This facility manufactures a range of Customwood MDF products 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.

On 29 May 2017 Development Consent SSD 7016 was granted by the Minister for Planning to construct a Particle Board manufacturing facility, modify the existing MDF manufacturing facility and undertake general site works (the Project) at the existing Borg Panels facility located on 124 Lowes Mount Road, Oberon.

Condition B32 of Development Consent SSD 7016 requires the preparation of a Surface Water Management Plan (SWMP) for the Existing Development to manage site water. The Existing Development comprises the MDF plant and multi-daylight (MDL) plant as unmodified.

This SWMP has been prepared to satisfy Condition B32 and Condition C9 of Development Consent SSD 7016 and is a sub plan to the Operational Environmental Management Plan (OEMP) (Condition C4).

## 1.2 Purpose and Objectives

The purpose of this SWMP is to:

- Consolidate and address the relevant conditions of Development Consent SSD 7016 and Environment Protection Licence (EPL) 3035 to manage surface water at the Borg Panels facility.

The objectives of the SWMP are to:

- Define the strategies and procedures to be implemented to ensure that the Borg Panels facility does not result in unacceptable off-site impacts on surface water systems and downstream users;
- Define a program to monitor and report on the impacts and environmental performance of the Borg Panels facility, and the effectiveness of any management measures; and
- Define a protocol for managing and reporting any incidents, complaints, non-compliances with statutory requirements, and exceedances of the impact assessment criteria and/or performance criteria.

### **1.3 Structure of this Surface Water Management Plan**

This SWMP has been developed to manage site surface water at the Existing Development and to satisfy the requirements set out in Conditions B32 and C9 of Development Consent SSD 7016, and includes information on the following:

- Section 2 – Legislative and Regulatory Compliance
- Section 3 – Site Water Management
- Section 4 – Stormwater Management
- Section 5 – Erosion and Sediment Control
- Section 6 – Surface Water Monitoring Program
- Section 7 – Surface Water Impact Assessment Criteria
- Section 8 – Reporting
- Section 9 – SWMP Review

### **1.4 Consultation**

The Final Draft of this SWMP was sent to the EPA and DPI for review and consultation. The Final SWMP has been submitted to the Secretary of the Department of Planning and Environment (DP&E) for approval. Correspondence regarding consultation is included in **Appendix A**.

## 2 Legislative and Regulatory Compliance

### 2.1 Relevant Legislation

Key environmental legislation relating to surface water management for the Existing Development includes:

- *Protection of the Environment Operations Act 1997*; and
- *Environmental Planning and Assessment Act 1979*.

### 2.2 Conditions of Consent

The Existing Development operations are subject to the conditions contained in Development Consent SSD 7016 dated 29 May 2017.

The specific requirements for a SWMP (Schedule 2, Condition B32) and general requirements for environmental management plans (Schedule 2, Condition C9) are detailed in **Table 1**.

**Table 1 – Development Consent Conditions**

No.	Requirement	Document Reference
	<b>SOILS, WATER QUALITY AND HYDROLOGY</b>	
	<b>Surface Water Management Plan</b>	
B32	Within 6 months of the date of this consent, the Applicant must prepare a Surface Water Management Plan (SWMP) for the Existing Development, that incorporates the <i>Oberon Stormwater Management Strategy</i> , Rev G, prepared by Parsons Brinckerhoff, dated March 2012, to the satisfaction of the Secretary. The SWMP must form part of the OEMP required by Condition C4 and be prepared in accordance with Condition C9. The SWMP must:	This Plan
	a) be prepared in consultation with the EPA and DPI;	<b>Section 1.4</b>
	b) detail water use, metering, disposal and management on-site;	<b>Section 3</b>
	c) detail the water licence requirements for the Existing Development;	<b>Section 2</b>
	d) describe the surface water management system on-site;	<b>Section 4</b>
	e) include a program to monitor: <ul style="list-style-type: none"> <li>(i) surface water flows and quality;</li> <li>(ii) surface water storage and use; and</li> <li>(iii) sediment basin operation;</li> </ul>	<b>Section 6</b> <b>Section 4</b> <b>Section 5</b>
	f) include a sediment and erosion control plan;	<b>Section 5</b>

No.	Requirement	Document Reference
	g) include surface water impact assessment criteria, including trigger levels for investigating and potential adverse surface water impacts; and	Section 7
	h) include a protocol for the investigation and mitigation of identified exceedances of the surface water impact assessment criteria.	Section 7
	<b>MANAGEMENT PLAN REQUIREMENTS</b>	
C9	The Applicant must ensure that the environmental management plans required under Condition C4 of this consent are prepared by a suitably qualified person or persons in accordance with best practice and include:	
	a) detailed baseline data;	Section 6
	b) a description of: <ul style="list-style-type: none"> <li>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>(ii) any relevant limits or performance measures/criteria; and</li> <li>(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Development or any management measures;</li> </ul>	Section 2  Section 6  Section 6
	c) a description of the management measures that would be implemented to comply with the relevant statutory requirements, limits or performance measures/criteria;	Sections 3, 4 and 5
	d) a program to monitor and report on the: <ul style="list-style-type: none"> <li>(i) impacts and environmental performance of the Development; and</li> <li>(ii) effectiveness of any management measures (see (c) above);</li> </ul>	Section 8
	e) a contingency plan to manage any unpredicted impacts and their consequences;	Section 7
	f) a program to investigate and implement ways to improve the environmental performance of the Development over time;	Section 7
	g) a protocol for managing and reporting any: <ul style="list-style-type: none"> <li>(i) incidents;</li> <li>(ii) complaints;</li> <li>(iii) non-compliances with statutory requirements; and</li> <li>(iv) exceedances of the impact assessment criteria and/or performance criteria; and</li> </ul>	Section 8
	h) a protocol for periodic review of the plan.	Section 9
	<b>Note:</b> These requirements also apply to the preparation or updates of management plans for the Existing Development and the Project.	

## 2.3 Development Consent SSD 7016 Mitigation Measures

Appendix B Applicant's Management and Mitigation Measures to Development Consent SSD 7016 details the reasonable and practical measures to avoid or minimise impacts to the environment that may arise as a result of the Project. There are no mitigation measures relating to the Existing Development as unmodified.

## 2.4 Environment Protection Licence

Environment Protection Licence 3035 (EPL 3035) specifies discharge to waters points, water concentration limits and monitoring requirements for operation of the Existing Development.

EPL 3035 was varied on 9 October 2017 to align the licence details and conditions with conditions contained in Development Consent SSD 7016 issued by DP&E.

## 2.5 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 2**.

**Table 2 – 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

## 2.6 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. The Term of the Service Contract is twelve months automatically renewable.

The Trade Waste Service Contract is currently under review.

## 2.7 Stormwater Harvesting

Only polluted runoff from operational areas and roof runoff is harvested for reuse. No runoff from the undeveloped rural land to the west of Lowes Mount Road is harvested. This unpolluted runoff is separated from the polluted industrial runoff into its own swale.

Given that clean/unpolluted runoff is not harvested, there is no need to calculate or exercise any harvestable rights as the only water harvested is from industrial land uses.



## 3 Site Water Management

### 3.1 Overview

The existing Borg Panels facility has three (3) presses capable of producing medium density fibreboard (MDF). The production processes are the same for the presses Conti I, Conti II, and the thin MDF line.

The following production processes use water for manufacturing:

- **Chip Wash** – Chip is washed via a water washing system, which is used to remove the contaminants (foreign particles and minerals) from the chip. This process promotes longevity of the refiner discs and improves board quality and usability.
- **Chip Squeeze Out and Steaming Bin** – After the chip washing process large steel vessels are filled with clean chip, these are heated using steam to soften the chips making the refining process easier, this also increases the fibre length as it prevents overworking. Prior to refining the chip is squeezed to remove excess water. This excess water is used for top up water for the chip wash process.

In addition to the MDF production processes, water is also used:

- In the manufacture of treated paper for use as decorative laminates;
- For creation of steam used in the fibre preparation process; and
- In cooling water for the refiner seals.

**Figure 1** provides an overview of the major components of the site water management system and shows metering locations.

### 3.2 Water Consumption

Inflow water sources to the Borg Panels facility (refer **Figure 1**) include:

- Town Water – average daily flow of 178m<sup>3</sup> metered at entry to the facility on Lowes Mount Road; and
- Recycled water from water treatment plant – average total daily flow of 447m<sup>3</sup>. Recycled water is made up of:
  - Spring Dam Water (Ground Water Access Licence 28951 (refer **Section 2.5**)) – average daily flow of 85m<sup>3</sup> up to a maximum extraction of 28 mega litres per annum, metered at Spring Dam pump station;
  - Harvested Stormwater – average daily flow of 54m<sup>3</sup> metered at FF2 Dam meter;
  - Process Water – average daily flow of 308m<sup>3</sup> metered at the process locations shown on **Figure 1**.

The total daily site water usage for the existing development is estimated at approximately 650m<sup>3</sup>. All water meters are read and recorded daily.

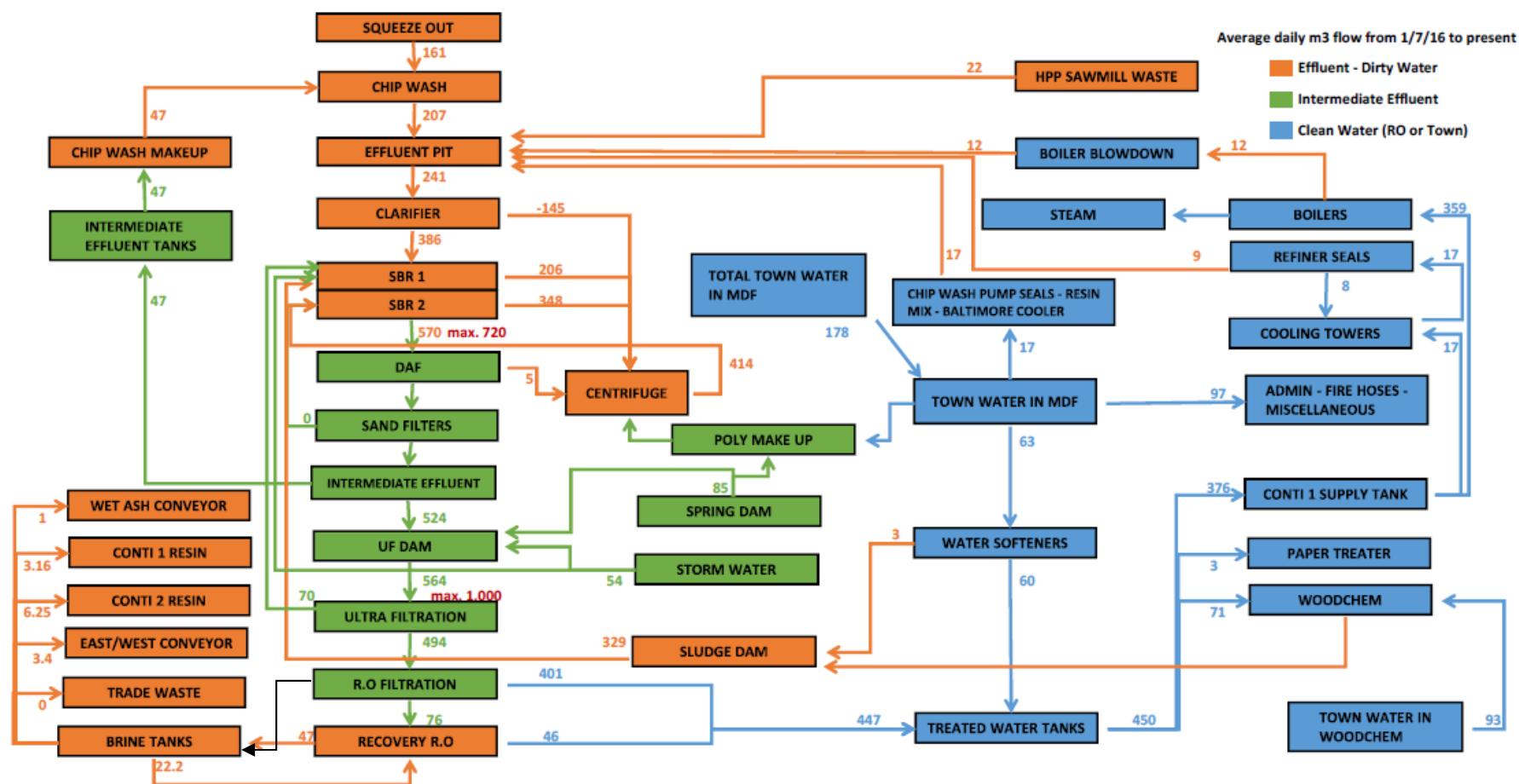


Figure 1 – Site Water Management System

### 3.3 Water Treatment

All site effluent (wastewater) is treated in the water treatment plant. Effluent is also received from HPP Sawmill Site 2 and Woodchem in the form of boiler blow down, cooling tower bleed water and wash down water.

The water treatment plant utilises filtration and biological degradation to remove contaminants from the water for re-use, capturing over 300kL per day from the site and reusing it in the manufacturing process.

Borg Panels produces most of the incoming effluent and consumes a large proportion of recycled water, mainly in steam generation. Effluent is generated by the washing and squeezing of chip during the initial stages of MDF manufacturing. The volume of effluent generated depends on chip volumes (production rates) and chip moisture. Moist chip will generate more waste effluent than dry chip and typically a greater volume of effluent is generated during the winter months. Approximately 400-500kL/day of effluent is generated by the MDF facility.

High quality recycled water produced by the Reverse Osmosis (RO) system is used for the boiler (200-300kL/day approximately) and Woodchem (100-150kL/day approximately). The Paper Treater also requires a small amount of high quality RO or soft water.

Intermediate effluent or low quality recycled water treated by dissolved air floatation (DAF) is used for the chipwash systems (approximately (20kL/day). Dewatered waste sludge (biomass) from the centrifuge is sent to the heat plant as fuel for the furnace.

**Figure 2** provides an overview of the major components of the water treatment system.

### 3.4 Waste Water

The water treatment plant produces brine, a waste product from the Reverse Osmosis (RO) system, which is high in dissolved solids. Currently, Borg Panels have two options for disposal of brine:

- Dilution of resins in the manufacturing process which are then captured in the MDF; and
- Discharge of trade wastes into Council's sewerage system on the terms set out within the Trade Waste Service Contract.

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.

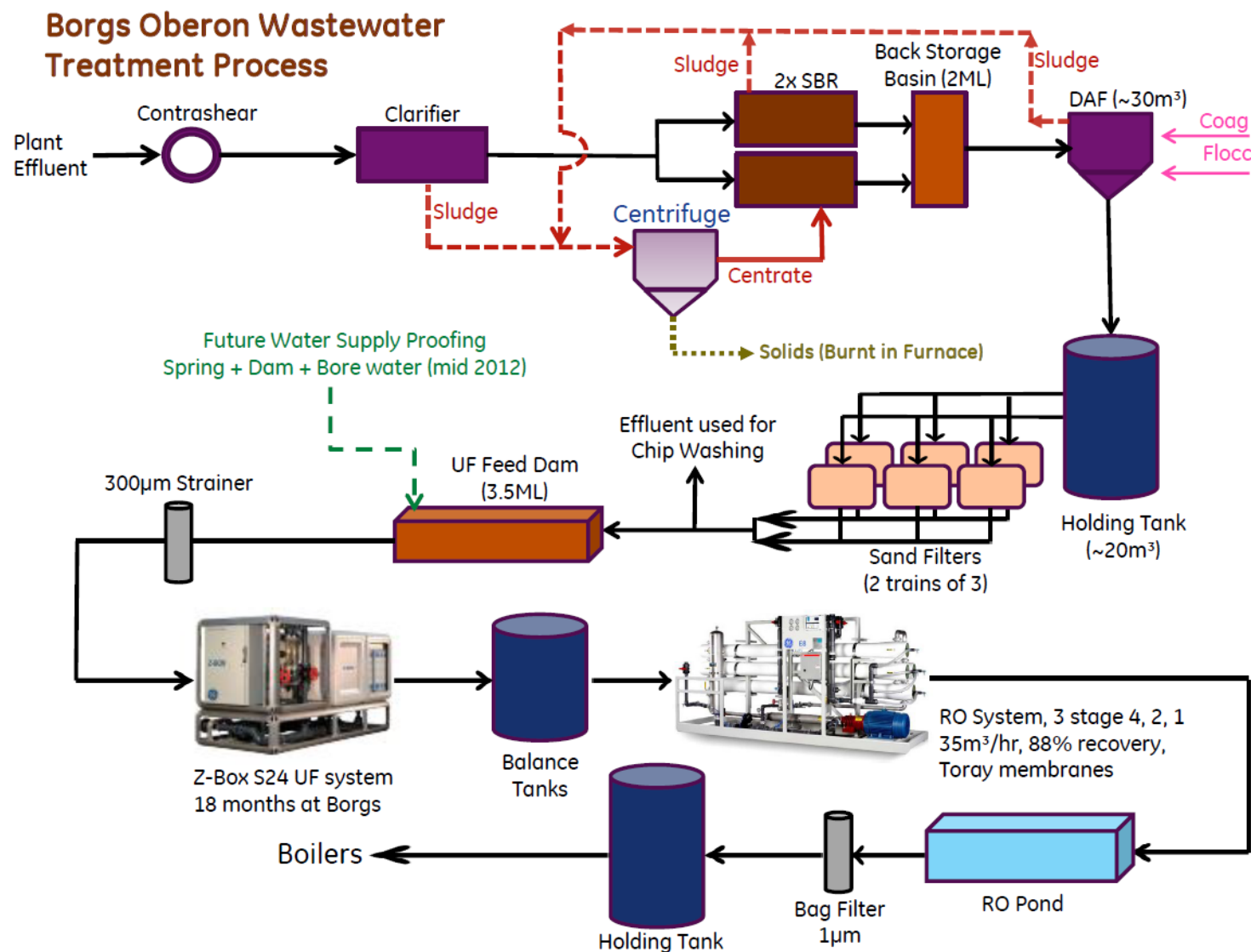


Figure 2 – Major Components of Water Treatment System

## 4 Stormwater Management

### 4.1 Overview

This Section (**Section 4**) predominantly outlines the findings and recommendations detailed in the *Oberon Stormwater Management Strategy*, Rev G, prepared by Parsons Brinckerhoff (March 2012). These design criteria have been implemented as part of site upgrades that have been undertaken since 2012.

Generally, the site grades towards the east, and the licenced discharge point to Kings Stockyard Creek is located in the north eastern corner of the site. A high ground water table is known to exist at the site and generally flows towards its north eastern corner. This fluctuating ground water table is a significant constraint of the site since excavation below this level cannot occur without consequential groundwater recharging taking place.

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 (CHH) and HPP Site 2 facilities flow 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.

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**.



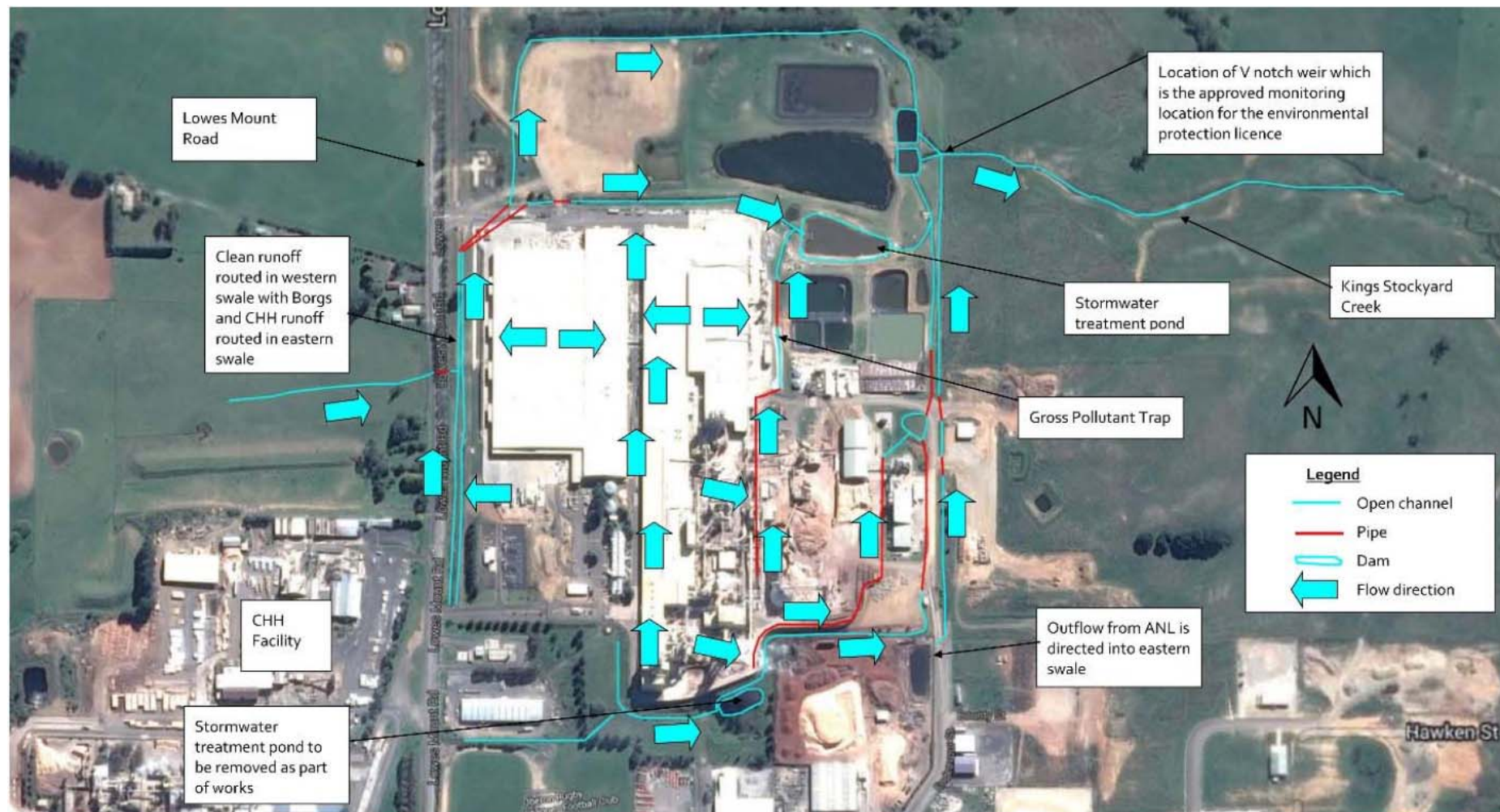


Figure 3 – Existing Surface Water Management System

## 4.2 Objectives

The main objectives of the stormwater management system are to:

- Ensure water quality discharging from the site adheres to the sites various Environmental Protection Licence 3035 requirements;
- Be capable of conveying the 100 year ARI rainfall event to the discharge location on Kings Stockyard Creek;
- Provide an adequately sized retention basin to allow water to be reused on-site;
- Minimise peak flow rates; and
- Maintain the separation of upstream HPP Site 1 clean stormwater flows.

## 4.3 Site Strategy

The main stormwater strategy for the site is to convey and treat stormwater from both the Borg Panels facility and upstream sites using large, flat grassed swales and sediment basins. The sediment basins allow water to be captured for reuse on-site and for sediments to settle out. A detailed schematic of the stormwater system is shown in **Figure 4**.

A 1050 mm diameter culvert under Lowes Mount Road connects CHH with the western grass dirty water swale. A 900 mm diameter culvert connects HPP Site 1 with the western clean water swale.

Due to the flat topography of the site the western grassed swales act as elongated basins holding a significant volume of water prior to discharging into the channel systems downstream from Gate 6.

These swales are linked to the channel systems via four (4) x 1050 mm diameter culverts constructed in two separate arrangements. The inlet levels to these culverts are raised slightly higher than the upstream swale invert and a large concrete pit connects the culverts below Gate 6.

Below Gate 6, a flow diversion bund constructed for a 1 year ARI event continues to separate the CHH and Borg flows from the HPP Site 1 flows. The culverts and swales are sized to convey the 100 year ARI flow rates from upstream catchments. In rainfall events greater than 1 year ARI water from all sites converges.

Water from the eastern parts of the site drains towards the north eastern corner and licenced discharge point through a series of swales and sediment basins. Water from the log yard containing fine fibrous wood material, is directed first to a gross pollutant trap and then into the stormwater treatment pond.





## **4.4 Controls**

Infrastructure for the protection of stormwater quality at the Borg Panels facility includes the following:

- Bunding of chemical and petroleum products tanks;
- Segregation of stormwater and process waters;
- Treatment and reuse of harvested stormwater;
- Gross pollutant trap to remove fine fibrous wood material; and
- Penstock gate valves to allow for shutting down the stormwater system in the event of a spill or fire emergency.

## **4.5 Maintenance**

Regular cleaning, through manual sweeping and mechanical street sweeping of production areas, is undertaken to help prevent dirt, wood fines and chip from entering the stormwater system. The gross pollutant trap also catches debris that is not swept up, further preventing entry to the sediment basins. This cleaning of production areas helps ensure the final water quality discharging from the site is within EPL limits.

Regular maintenance of the penstock, headwall and other valves, trash racks, gross pollutant trap, and 'V'-notch weir ensure the system runs smoothly and that in the event of an emergency all items of equipment are operational.

Due to the flat longitudinal swale grades it is likely that sediment will build up in the swale system. The swales and basins are to be cleaned on a regular basis when a significant amount of sediment builds up to keep the swales operating at their optimal performance level.

Quarterly inspections to identify sediment build up are undertaken and maintenance scheduled as required.

## 5 Erosion and Sediment Control

### 5.1 Overview

Changes in land use have the potential to disturb soils, alter drainage patterns and affect environmental values both on and off site (Landcom, 2004). The operation is an existing MDF manufacturing facility with limited potential for erosion and sediment generation. The surface facilities and surface water management system have been developed over time as the site has developed and the area is well vegetated.

Erosion is mostly a short-term problem that results from the removal of vegetation and ground cover. The existing infrastructure areas were constructed many years ago and have become stabilised over time. The potential for erosion and sediment generation is limited as large scale clearing and ground disturbance is typically not required.

### 5.2 Site Activities and Potential for Soil Erosion

The existing MDF manufacturing facility is well established and areas that were disturbed during the construction phase have been stabilised. Surface water has the potential to cause erosion and is managed as part of the normal site operations. **Figures 3 and 4** show the existing surface water management system for the Borg Panels site.

Several types of erosion control measures have been implemented with the aim of preventing soil erosion and the entry of sediments into any of the surrounding water bodies.

Swales and drains shown on the surface water management plans (**Figures 3 and 4**) are typically constructed with either a parabolic or trapezoidal cross section rather than a V-shape, which can be easily eroded. Channels and associated banks have been grassed where possible to assist with stability during water flows and to minimise sediment movement. Channels are periodically inspected (at least quarterly or following significant rainfall events) to identify and repair damage caused by scour, sediment deposition, channel obstruction and loss of vegetative cover.

Several sediment basins have been constructed within the stormwater management system (**Figures 3 and 4**). The sediment control basins have been designed and located to contain dirty water from previously disturbed areas on site. The primary purpose of these basins is to contain sediment from normal rainfall events as well as reduce flow velocity during large rainfall events.

These structures are regularly maintained and cleaned out once the capacity of the structure is deemed to have been reduced significantly. The structures are inspected after major rainfall events and repairs made as required.

### **5.3 Maintenance of Erosion and Sediment Controls**

The Borg Panels facility has been operational for many years and there are relatively limited opportunities for erosion and sediment generation at this established site. However, regular inspection and maintenance of permanent structures ensures that the water management system and erosion controls remain effective. At active disturbed areas, regular inspections are undertaken to monitor the condition and effectiveness of controls.

Measures to minimise erosion and sediment generation include:

- Identification and review of surface activities that may change surface water flows and result in erosion;
- Minimising the clearing of vegetation and where clearing is necessary site rehabilitation of disturbed areas;
- Regular checking of rehabilitated areas;
- Installation of temporary and/or additional permanent controls to manage locations that have been identified as requiring attention;
- Diversion of surface and road runoff away from disturbed areas;
- Regular inspection and cleaning of catch drains and structures following storm events or other activities such as vehicle movements that may result in damage; and
- Clearing of excessive vegetation and weeds along drainage lines.

## 6 Surface Water Monitoring Program

Surface water monitoring is undertaken in accordance with the requirements of EPL 3035 issued under the *Protection of the Environment Operations Act 1997*.

### 6.1 Location of Monitoring/Discharge Points

Surface water is discharged from the Existing Development via EPA Identification/Licensed Discharge Point 1. Point 1 ('v'-notch weir) discharges to an unnamed creek, which in turn discharges to Kings Stockyard Creek, and is located on the outflow of the southern dam as shown on **Figure 4**.

The locations and type of surface water monitoring and discharge points are listed in **Table 3**.

**Table 3 – Surface Water Monitoring and Discharge Points**

EPA Identification No.	Type of Monitoring Point	Type of Discharge Point	Location Description
1	Discharge to waters; Discharge quality monitoring	Discharge to waters; Discharge quality monitoring	Discharge from 'v'-notch weir to unnamed creek that discharges to Kings Stockyard Creek as shown on the monitoring point figure provided to the EPA on 22 August 2017
28	Discharge to waters; Discharge quality monitoring	Discharge to waters; Discharge quality monitoring	Discharge from First Flush Basin to unnamed creek as shown on monitoring point figure provided to the EPA on 22 August 2017

EPA Identification/Licensed Discharge Point 28 refers to a point after the confluence of the First Flush Basin discharge with the King Stockyard Creek tributary to be constructed as part of the Project (construction and operation of a particle board facility and alterations and additions to the Existing Development).

### 6.2 Concentration Limits

The concentration of a pollutant discharged from EPA Identification/Licensed Discharge Points 1 and 28 must not exceed the water concentration limits specified in **Table 4**.

**Table 4 – 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

### 6.3 Requirement to Monitor and Frequency

For EPA Identification/Licenced Discharge Points 1 and 28 Borg Panels must monitor, by sampling and obtaining results of analysis, the concentration of each pollutant specified in **Table 4**.

Sampling is undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutants in New South Wales* (DEC, March 2004). Water samples are collected by trained personnel, and analysed by NATA accredited laboratories.

The frequency of sampling is weekly during any discharge.

### 6.4 Surface Water Monitoring Data

**Table 5** provides a summary of Borg Panels annual average water monitoring results for discharge from the 'v'-notch weir (Point1). EPA Identification/Licenced Discharge Point 28 is to be constructed as part of the Project.

**Table 5 – Annual Average Water Monitoring Results EPA Identification Point 1**

<b>Pollutant</b>	<b>Units of Measure</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>
Aldrin	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Biochemical Oxygen Demand (BOD)	mg/L	13	5	8	4	4	10	4.8	3.8	38.2	12.2	9.3	3.4
Colour	Hazen	73	38	42	39	35	27	26.6	27.0	45.8	69.3	58.8	63.6
Dieldrin	µg/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Methylene Blue Active Substances (MBAS)	mg/L	0.08	0.06	0.11	0.17	0.11	0.19	0.10	0.09	0.21	0.10	0.1	0.1
Nitrogen (Total)	mg/L	4.7	3.0	3.1	3.0	2.4	3.0	2.3	2.4	12.0	7.1	3.3	3.1
Oil and Grease	mg/L	0.13	0.58	0.19	0.78	0.00	1.45	4.2	4.0	4.8	4.3	4.4	0
pH	pH	7.5	7.8	7.6	7.8	8.0	7.3	7.8	7.8	7.5	7.6	7.7	7.6
Phosphorus (Total)	mg/L	0.061	0.048	0.086	0.134	0.050	0.097	0.0	0.1	0.4	0.2	0.1	0.1
Total Suspended Solids	mg/L	21	6	8	7	7	10	12.8	19.9	52.9	31.8	20.2	13.6

## 6.5 Trade Waste

Monitoring requirements as specified in the Trade Waste Service Contract are shown in **Table 6**.

**Table 6 – Trade Waste Monitoring Requirements**

Parameter	Limit	Weekly	Monthly	Quarterly	Annually
COD (mg/L)	1200	X			
Suspended Solids (mg/L)	300	X			
BOD <sub>5</sub> (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 report detailing the results of the monitoring program is to be supplied to the Council on a monthly basis.

## 7 Surface Water Impact Assessment Criteria

This section sets out the surface water response plan for Borg Panels facility. Potential impacts on surface water, triggers, actions and responsibilities for addressing impacts are summarised in **Table 7**.

### 7.1 Water Quality Exceedance

Should water quality monitoring indicate that the criteria set out in EPL 3035 (**Table 4**) or the Trade Waste Service Contract (**Table 6**) have been exceeded, Borg Panels will conduct an incident investigation into the potential sources and/or causes.

As the limits specified in EPL 3035 are the 100-percentile concentration limit, all exceedances will generate an investigation, however the exceedance will need to be determined to be *causing or threatening material harm to the environment* to trigger the pollution incident response measures detailed in the OEMP.

In the event that a pollution incident causes or threatens material harm to the environment, the Borg Panels Pollution Incident Response Management Plan (PIRMP) is to be immediately implemented, including immediate notification of authorities as outlined in the OEMP.

Environmental incidents which are identified as *not* causing or threatening material harm to the environment should be contained if safe to do so, then the Borg Panels Incident Reporting procedure undertaken. Exceedances classified as not causing or threatening material harm to the environment will be reported annually in the Annual Review.

Full details on environmental incident investigation and reporting are provided in the OEMP.

### 7.2 Unlicensed Discharge

In the event of an unlicensed discharge, Borg Panels will notify the EPA immediately and undertake an investigation of the discharge event. In the unlikely event that a discharge poses a threat to health of surrounding property owners and occupiers, Borg Panels will implement the Pollution Incident Response Management Plan (PIRMP), which includes notification with those likely to be affected. A list containing surrounding property owner's and occupier's contact details is held by Borg Panels.

The notification procedure is to be initiated by the Environment Officer for Borg Panels. In the absence of the Environment Officer the notification procedure is to be initiated by the person designated as fulfilling the responsibilities of the Environment Officer. Notification will occur within 24 hours of it becoming known to site personnel that surrounding property owners and occupiers are likely to be adversely affected by discharges from the site. A record will be kept of all property owners and occupiers contacted and this will be retained by the Environment Officer.

An investigation report on the unlicensed discharge will be prepared and provided to the EPA or other relevant agency, including the DP&E.



### **7.3 Contingency Plan to Manage Any Unpredicted Impacts**

Should impacts eventuate that have not been predicted or considered in the SWMP, the following contingency plan will apply:

- 1) Assess whether impacts constitute a material risk of harm to the environment, and trigger the PIRMP and reporting requirements of the OEMP if necessary;
- 2) Investigate the cause of the unpredicted impact. This may include onsite process owners or external specialists as required;
- 3) Consult with government agencies regarding the unpredicted impact if the impact is material and require additional management strategies; and
- 4) Revise the SWMP.

The scale of the unpredicted impact will inform the level of response required through this process and whether the impact is material enough to require government agency consultation.

**Table 7 – Surface Water Response Plan – Triggers, Actions and Responsibilities**

Aspect	Trigger	Action	Timeframe	Responsibility	Further Information
Water quality impacts	Exceedance of water quality criteria set out in EPL 3035 ( <b>Table 4</b> ) or the Trade Waste Service Contract ( <b>Table 6</b> )	Determine if the event is a pollution incident causing or threatening material harm to the environment. If yes, implement the Borg Panels Pollution Incident Response Management Plan (PIRMP) immediately.  If not a pollution incident causing or threatening material harm to the environment, follow the Borg Panels Incident Reporting procedure.	Material harm incidents are to be reported immediately to DP&E, EPA and any other relevant agency. A report on the incident is to be provided within 7 days.  Incidents/exceedances classified as not causing or threatening material harm to the environment will be reported annually in the Annual Review.	Environment Officer	<b>Section 7.1</b>
Surface water discharge	Surface water discharge that is not licenced under EPL 3035	Notify DP&E, EPA and any other relevant agency and potentially affected persons (where necessary). Trigger the Pollution Incident Response Management Plan immediately if required (PIRMP material harm incident). Investigate and prepare report outlining causes, impacts and recommended mitigation measures. Supply report to agencies. Implement report recommendations.	Notify DP&E, EPA and any other relevant agency immediately. Trigger PIRMP immediately if of sufficient magnitude. Provide written report within 7 days.	Environment Officer	<b>Section 7.2</b>

## **8 Reporting**

### **8.1 Monitoring Data Review**

The Environment Officer will review all surface water quality monitoring results following a licenced discharge to either waters or trade waste and ensure corrective action is taken where results or trends indicate non-compliance or risk of future non-compliance to the development consent, EPL criteria or Trade Waste Service Contract.

The surface water results are included in the Annual Review. The Annual Review includes a summary of monitoring results during the past year, comparison against the water quality criteria specified in the EPL or Trade Waste Service Contract, and summary of the previous year's monitoring results.

The Annual Review also identifies any trends in water quality impacts and any non-conformance over the year, as well as describing any actions currently implemented or planned to ensure compliance with the water quality impact criteria. The Annual Review is available to the relevant authorities including the Department of Planning and Environment (DP&E), Environment Protection Authority (EPA) and Oberon Council. It is also placed on the company's website along with a summary of environmental monitoring results in accordance with the requirements of Development Consent SSD 7016.

The EPA is provided with an annual return, statement of compliance and a monitoring and complaints summary annually as required by EPL 3035.

Borg Panels will conduct an Independent Environmental Audit in 2018, and at three yearly intervals thereafter.

### **8.2 Reporting**

#### **8.2.1 Annual Review**

In accordance with Development Consent SSD 7016 an Annual Review report is prepared and submitted to the Secretary Department of Planning and Environment on an annual basis.

The Annual Review summarises the environmental performance of Borg Panels activities for the reporting year. The results of the monitoring undertaken as specified in this SWMP will be compared against the impact assessment criteria in the relevant environmental management plans or monitoring programs and/or limits contained in Development Consent SSD 7016 and EPL 3035 to assess the effectiveness of environmental management.

### **8.2.2 Exceedance of Criteria / Environmental Incident Management**

Notification procedures and actions upon identification of an exceedance of any impact assessment criteria or management levels will be as per the Operational Environmental Management Plan (OEMP), and any specific requirements of the relevant management plan or monitoring program.

### **8.2.3 Complaints**

Community complaints will be managed in accordance with the procedures in the Operational Environmental Management Plan (OEMP).

## 9 SWMP Review

In accordance with Development Consent SSD 7016 Condition C10, this SWMP will be reviewed and if necessary revised within 3 months of an:

- Approval of a modification;
- Submission of an incident report under Condition C13;
- Approval of an Annual Review under Condition C11; or
- Completion of an audit under Condition C15.

The SWMP will also be updated as required to reflect any change to on-site management or monitoring programs referred to in this document, or any changes to Development Consent SSD 7016 or EPL 3035.

Revisions to the SWMP will be submitted to the Secretary DP&E for approval.

## Appendices

## **Appendix A – Correspondence**



Contact: Tim Baker  
Phone: 02 6841 7403  
Mobile: 0428 162 097  
Fax: 02 6884 0096  
Email: [tim.baker@dpi.nsw.gov.au](mailto:tim.baker@dpi.nsw.gov.au)

Victor Bendevski  
Borg Manufacturing  
2 Wella Way  
SOMERSBY NSW 2250

Our ref: OUT17/42947

24 October 2017

Dear Victor

### **BORG PANELS – SURFACE WATER MANAGEMENT PLAN**

I refer to your email dated 4<sup>th</sup> October providing DPI Water an opportunity to comment on the Surface Water Management Plan for the Borg Panels manufacturing facility at Oberon. DPI Water understands the plan has been prepared to satisfy Condition B32 and B33 of Schedule 2 of Project Approval SSD7016. DPI Water has reviewed the management plan and supporting drawings titled “Proposed Surface Water Management Plan for Construction Certificate” and provides the following comments.

#### **Surface Water Management Plan**

- Section 3.2 provides important detail on the sources and volumes of make-up water for the project. It is recommended detail be provided on metering points to confirm the ability for ongoing monitoring and reporting of water use.
- Whilst this is a surface water management plan it is recommended the use of groundwater also be included in the site water management system to ensure a comprehensive understanding of all water sources.
- This plan is yet to include detail of the Water Quality Pond and the Emergency Spill Pond. This will require updates to the site water management system and other relevant sections in the plan. Detail will be required on how these ponds will be managed, in terms of volume triggers for release or pump out and water quality objectives and triggers. Providing an understanding of each pond around the site in terms of these requirements is requested.

#### **Drawings – Proposed Surface Water Management Plan for Construction Certificate**

- Sheet 3 refers to 1 in 1 side slopes to the Rugby Club batter interface, however there is no detail on how this batter is to be stabilised.
- It is recommended rock be used instead of concrete blocks to be consistent with DPI Water’s Guidelines for Controlled Activities on Waterfront Land.
- DPI Water is supportive of Sheet 12 which details the design of rock protection for outlets and drop structures. It is recommended the rock size be confirmed as appropriate to withstand the shear stresses predicted at these sites.



- Reference is made on Sheet 33 to the use of a GCL and 200mm of clay to construct the embankment and base of the proposed water quality pond and emergency spill pond. Clarification is requested of the permeability to be achieved to mitigate impacts to the local groundwater and surface water system.

Should you have any further queries in relation to this submission please do not hesitate to contact Tim Baker on (02) 6841 7403.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Vickie Chatfield', is written over a large, faint, oval-shaped watermark or background graphic.

**Vickie Chatfield**  
**Manager, Regional Water Regulation**  
**Department of Primary Industries Water**



EF13/3921 & DOC17/553311-01

Mr Victor Bendeviski  
Manager Environmental and Regulatory Compliance  
Borg Panels Pty Ltd  
Private Bag 1  
OBERON NSW 2787

Attention: Carly McCormack

20 November 2017

Dear Ms McCormack

**Borg Panels Pty Ltd – Surface Water Management Plan**

I refer to the Surface Water Management Plan for the Borg Panels premises received by the Environment Protection Authority (EPA) on 8 November 2017.

Thank you for forwarding the draft surface water management plan (the Plan) to the EPA as required under condition B32 of Development Consent SSD 7016. The EPA encourages the development of Environmental Management Plans/Programs to ensure that proponents have determined how they will meet their statutory obligations and environmental objectives as specified by any Project/Development Approval and/or the conditions of an environment protection licence.

Please note the EPA does not review these plans/programs (unless in circumstances deemed necessary) as the role of the EPA is to set conditions/criteria for environmental protection and management, not to be directly involved in the development of strategies to comply with such conditions/criteria. As such the EPA will not be reviewing or endorsing the Plan.

As a management tool, such plans should assist the Borg in meeting their commitment to statutory compliance and wider environmental management and where appropriate should be integrated with other operational or management plans. The EPA recommends that such plans be audited to an industry standard or certified to the ISO 14001 standard (if applicable) as part of any overall environmental management system.

Should you have any further enquiries in relation to this matter please contact Andrew Helms or myself at the Central West (Bathurst) Office of the EPA by telephoning (02) 6332 7600.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Darryl Clift".

**DARRYL CLIFT**  
**Head Central West Unit**  
**Environment Protection Authority**



Contact: Pamela Morales  
Phone: 9274 6386  
Email: [pamela.morales@planning.nsw.gov.au](mailto:pamela.morales@planning.nsw.gov.au)

Our ref: SSD 7016

Mr Victor Bendeviski  
Environmental and Regulatory Compliance  
Borg Construction Pty Ltd  
2 Wella Way  
SOMERSBY NSW 2250

Dear Mr Bendeviski

**Borg Panels Timber Processing Facility, Oberon, (SSD 7016)  
Operational Environmental Management Plan – Condition C4**

I refer to your recent correspondence and submission of the Operational Environmental Management Plan (OEMP), Rev 1, and associated sub-plans for the existing medium density fibreboard (MDF) facility prepared by Borg Construction Pty Ltd (Borg) and dated 30 November 2017.

The Department has reviewed the OEMP and its associated sub-plans for the MDF facility and is satisfied they meet the terms of the relevant conditions of consent. Accordingly, the OEMP for the MDF facility has been approved pursuant to Condition C4 of the above consent.

Please ensure that all recommendations and measures outlined in the OEMP and its associated sub-plans are fully implemented.

You are also reminded that prior to the commencement of operation of the particle board facility, you must update the OEMP to include details of the particle board facility and its management. The updated OEMP must be re-submitted to the Secretary for approval.

Should you have any further enquiries, please contact Pamela Morales on 9274 6386.

Yours sincerely

Chris Ritchie  
**Director**  
**Industry Assessments**  
As delegate for the Secretary

21/12/17.