

BORG CONSTRUCTION PTY LTD

**ENVIRONMENTAL IMPACT STATEMENT**  
**TIMBER PROCESSING FACILITY (PARTICLE BOARD)**

LOT 1 DP 1085563, LOT 2 DP 1085563, LOT 26 DP 1200697,

LOT 24 DP 1148073 AND LOT 1 DP 1076346

124 LOWES MOUNT ROAD, OBERON

JUNE 2016

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124 LOWES MOUNT ROAD, OBERON

PROJECT NUMBER: 14.023

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# **TABLE OF CONTENTS**

## **DECLARATION**

## **EXECUTIVE SUMMARY**

<b>PART A – PROJECT BACKGROUND .....</b>	<b>15</b>
<b>1.0 INTRODUCTION .....</b>	<b>15</b>
1.1. Overview .....	15
1.1.1. Existing Operations and Approval.....	15
1.2. Project Outline .....	16
1.3. Location and Setting .....	16
1.4. The Proponent .....	19
1.5. Project Need and Benefits .....	19
1.6. Project Description.....	21
1.7. Environmental Impact Assessment Process.....	22
1.7.1. Designated Development.....	22
1.7.2. Environmental Assessment Requirements .....	22
1.7.3. Stakeholder Consultation.....	22
1.7.4. EIS Exhibition.....	22
1.8. Nomenclature and Abbreviations .....	23
1.9. Structure of this Report. ....	24
<b>PART B – LOCATION AND CONTEXT .....</b>	<b>25</b>
<b>2.0 REGIONAL AND LOCAL CONTEXT .....</b>	<b>25</b>
2.1. Regional Overview .....	25
2.2. Surrounding Land Use.....	25
2.3. Land Use Context.....	25
<b>3.0 SITE LOCATION AND HISTORY .....</b>	<b>26</b>
3.1. Site Location and Description .....	26
3.2. Ownership and Legal Description .....	26
3.3. Site History.....	26
3.3.1. Oberon Timber Complex.....	28
<b>PART C – PROJECT NEED AND ALTERNATIVES .....</b>	<b>29</b>
<b>4.0 OBJECTIVES AND PROJECT NEED .....</b>	<b>29</b>
4.1. Project Objective.....	29
4.1.1. Biophysical Objectives .....	29
4.1.2. Socio-Cultural Objectives .....	29
4.2. Project Need .....	29
4.3. Project Benefits .....	30
<b>5.0 ALTERNATIVES CONSIDERED .....</b>	<b>31</b>
5.1. Project Alternatives .....	31
5.1.1. Do Nothing .....	31

5.1.2. Alternative Locations .....	31
5.1.3. Preferred Option.....	31
<b>PART D – PROJECT AND MANAGEMENT .....</b>	<b>33</b>
<b>6.0 PROJECT DESCRIPTION.....</b>	<b>33</b>
6.1. Overview .....	33
6.1.1 Particle Board Facility.....	33
6.1.2 Paper Treatment .....	38
6.1.3 Laminating Press.....	41
6.1.4 Automated Storage Warehouse.....	43
6.1.5 Sanding Line.....	43
6.1.6 Lot Consolidation and Boundary Adjustment.....	43
6.2. Site Preparation .....	44
6.3. Construction .....	45
6.3.1. Program of Works.....	45
6.3.2. Outline of Main Construction Activities.....	45
6.3.3. Fencing, Security and Lighting.....	46
6.3.4. Construction Workforce .....	46
6.3.5. Construction Hours .....	46
6.3.6. Construction Environmental Management and Monitoring.....	46
6.4. Operation.....	47
6.4.1. Import .....	47
6.4.2. Production.....	47
6.4.3. Storage.....	47
6.4.4. Dispatch .....	47
6.4.5. Fire Management .....	47
6.4.6. Stormwater Management .....	48
6.4.7. Security .....	48
6.4.8. Hours of Operation.....	48
<b>PART E – PLANNING MATTERS .....</b>	<b>49</b>
<b>7.0 STATUTORY PLANNING .....</b>	<b>49</b>
7.1. Commonwealth Matters .....	49
7.1.1. <i>Environment Protection and Biodiversity Conservation Act 1999</i> .....	49
7.2. State Matters .....	49
7.2.1. <i>Environmental Planning and Assessment Act 1979 (EP&amp;A Act)</i> .....	49
7.2.2. <i>Environmental Planning and Assessment Regulation 2000</i> .....	51
7.2.3. Relationship with Project Approval 27/95.....	53
7.2.4. State Environmental Planning Policies .....	55
7.2.5. Central West and Orana Regional Growth Plan .....	56
7.3. Local Matters.....	56
7.3.1. <i>Oberon Local Environmental Plan 2013</i> .....	56
7.3.2. Oberon Development Control Plan .....	59



7.4. Licencing and Other NSW Environmental Approvals .....	62
<b>8.0 ENVIRONMENTAL COMMITMENT .....</b>	<b>63</b>
8.1. Policy Statement.....	63
8.2. Environmental Management Program .....	63
<b>PART F – ISSUES IDENTIFICATION .....</b>	<b>64</b>
<b>9.0 STAKEHOLDER ENGAGEMENT .....</b>	<b>64</b>
9.1. Consultation with Department of Planning and Environment.....	64
9.2. Agency Consultation .....	68
9.3. Community Consultation .....	68
<b>PART G – ENVIRONMENTAL IMPACT ASSESSMENT.....</b>	<b>69</b>
<b>10.0 TRAFFIC AND TRANSPORT .....</b>	<b>69</b>
10.1. Existing Environment.....	69
10.2. Potential Impacts .....	70
10.3. Management and Mitigation Measures.....	71
<b>11.0 AIR QUALITY.....</b>	<b>72</b>
11.1. Existing Environment.....	72
11.2. Potential Impacts .....	75
11.2.1 Construction .....	75
11.2.2 Operation.....	76
11.3. Management and Mitigation Measures.....	79
<b>12.0 HAZARD AND RISK .....</b>	<b>81</b>
12.1. Existing Environment.....	81
12.2. Potential Impacts .....	81
12.3. Management and Mitigation Measures.....	82
<b>13.0 NOISE AND VIBRATION.....</b>	<b>84</b>
13.1. Existing Environment.....	84
13.2. Potential Impacts .....	86
13.3. Management and Mitigation Measures.....	87
<b>14.0 SOIL.....</b>	<b>88</b>
14.1. Existing Environment.....	88
14.2. Potential Impacts .....	88
14.3. Management and Mitigation Measures.....	89
<b>15.0 WATER .....</b>	<b>90</b>
15.1. Existing Environment.....	90
15.2. Potential Impacts .....	91
15.3. Management and Mitigation Measures.....	92
<b>16.0 WASTE.....</b>	<b>95</b>
16.1. Existing Environment.....	95
16.2. Potential Impacts .....	95
16.3. Management and Mitigation Measures.....	96
<b>17.0 GREENHOUSE GAS EMISSIONS .....</b>	<b>97</b>

17.1. Existing Environment.....	97
17.2. Potential Impacts .....	97
17.3. Management and Mitigation Measures.....	98
<b>18.0 VISUAL IMPACTS .....</b>	<b>99</b>
18.1. Existing Environment.....	99
18.2. Potential Impacts .....	100
18.3. Management and Mitigation Measures.....	104
<b>19.0 SOCIAL AND ECONOMIC .....</b>	<b>105</b>
19.1. Existing Environment.....	105
19.2. Potential Impacts .....	105
19.3. Management and Mitigation Measures.....	105
<b>20.0 ECOLOGY .....</b>	<b>106</b>
20.1. Existing Environment.....	106
20.2. Potential Impacts .....	108
20.3. Management and Mitigation Measures.....	108
<b>21.0 INDIGENOUS HERITAGE.....</b>	<b>109</b>
21.1. Existing Conditions .....	109
21.2. Potential Impacts .....	110
21.3. Management and Mitigation Measures.....	110
<b>22.0 EUROPEAN HERITAGE .....</b>	<b>111</b>
22.1. Existing Conditions .....	111
22.2. Potential Impacts .....	112
22.3. Management and Mitigation Measures.....	112
<b>23.0 CUMULATIVE IMPACTS .....</b>	<b>113</b>
<b>24.0 RESIDUAL RISK ANALYSIS .....</b>	<b>116</b>
24.1. Methodology.....	116
24.2. Analysis .....	117
24.3. Conclusion .....	117
<b>PART H – ENVIRONMENTAL MANAGEMENT AND MONITORING .....</b>	<b>118</b>
<b>25.0 ENVIRONMENTAL MANAGEMENT .....</b>	<b>118</b>
25.1. Environmental Management and Monitoring Plan .....	118
25.1.1. Construction Environmental Management Plan.....	118
25.1.2. Operational Environmental Management Plan.....	118
25.1.3. Environmental Auditing and Reporting.....	118
<b>26.0 SUMMARY OF MITIGATION MEASURES .....</b>	<b>119</b>
<b>PART I – PROJECT JUSTIFICATION.....</b>	<b>123</b>
<b>27.0 JUSTIFICATION FOR APPROVAL.....</b>	<b>123</b>
27.1. Biophysical, Economic and Social Considerations.....	123
27.1.1. Biophysical Factors.....	123
27.1.2. Sociocultural Factors .....	123
27.1.3. Economic .....	123

27.2. Ecologically Sustainable Development .....	123
27.2.1. Precautionary Principle .....	124
27.2.2. Intergenerational Equity .....	125
27.2.3. Biological Diversity and Ecological Integrity .....	125
27.2.4. Valuation and Pricing of Environmental Resources .....	125
27.3. The Objects of the <i>Environmental Planning and Assessment Act 1979</i> .....	125
27.4. Justification Summary .....	127
<b>PART J – EIS FINDINGS .....</b>	<b>128</b>
<b>28.0 CONCLUDING STATEMENT .....</b>	<b>128</b>
28.1. The Proposal .....	128
28.2. Alternatives .....	128
28.3. Justification for the Proposal .....	129
28.4. Sustainability of the Proposal .....	129
28.5. Conclusion .....	129

## LIST OF FIGURES

Figure 1: Site Context .....	16
Figure 2: Land Subject to Application .....	18
Figure 3: Project Description .....	20
Figure 4: Zoning Context .....	25
Figure 5: Particle Board Manufacturing Process Diagram .....	34
Figure 6: Impregnated Paper Manufacturing Process .....	40
Figure 7: Press Process Flowchart .....	42
Figure 8- Consolidation Plan .....	44
Figure 9: Site Zoning .....	57
Figure 10: Indicative Location of the Project relative to Noise Buffer .....	58
Figure 11: Site Access .....	69
Figure 12: Receptor Locations .....	73
Figure 13: Wind Modelling Data .....	74
Figure 14: Oberon Plateau (Source: <a href="http://weather.ajcmiskelly.id.au/other/gdr/">http://weather.ajcmiskelly.id.au/other/gdr/</a> ) .....	75
Figure 15: Cumulative HCHO Levels .....	77
Figure 16: Cumulative Annual Average PM10 GLC .....	78
Figure 17: Cumulative Annual Average TSP .....	79
Figure 18: Buffer Zone .....	85
Figure 19: Sensitive Noise Receptors and Monitoring Locations .....	85
Figure 20: Potentially Contaminated Land .....	88
Figure 21: Fuel Depot .....	89
Figure 22: Existing Stormwater Management .....	90
Figure 23: Proposed Water Cycle Mitigation Measures .....	94
Figure 24: Viewshed .....	99
Figure 25: Location of Photographs for VIA .....	100
Figure 26: Identified View Points .....	100
Figure 27: Abercrombie/O'Connell/Albion Roads Intersection .....	101
Figure 28: Oberon St/North St Junction .....	102
Figure 29: Ross St near Oberon Golf Club .....	102
Figure 30: Oberon St/Ross St Junction .....	103
Figure 31: Albion St/Tarana St Junction .....	103
Figure 32: Development Footprint and Vegetation Map .....	107
Figure 33: Aboriginal Artefact Location .....	109
Figure 34: Heritage Items .....	112

## LIST OF TABLES

Table 1: Section 79C Matters for Consideration: .....	50
Table 2: Form of an EIS.....	51
Table 3: Content of an EIS.....	53
Table 4: Compliance with Oberon DCP .....	62
Table 5: Matters Raised in SEARs .....	67
Table 6: Traffic Movements - Construction .....	70
Table 7: Traffic Movements - Operation (light vehicles) .....	70
Table 8: Traffic Movements - Operation (heavy vehicles).....	71
Table 9: Existing Pollutant Levels.....	72
Table 10: Construction air quality impacts and mitigation measures .....	75
Table 11: Proposed Pollutant Levels .....	76
Table 12: Potential Hazardous Materials .....	82
Table 13: Existing Licence Levels - Water Pollution .....	91
Table 14: Discharge Levels .....	91
Table 15: CHH Concentrations .....	91
Table 16: Waste Generation .....	96
Table 17: Current and proposed GHG Emissions.....	97
Table 18: Total Scope 1 and 2 GHG Emissions .....	98
Table 19: Significance of Effects .....	116
Table 20: Manageability of Effects .....	116
Table 21: Risk Rating.....	117
Table 22: Residual Risk Analysis.....	117

## LIST OF APPENDICES

APPENDIX A The Secretary-General's Requirements

APPENDIX B Plans

APPENDIX C Project Approval 027/95

APPENDIX D Consultation

APPENDIX E Traffic Impact Assessment

APPENDIX F Air Quality Impact Assessment

APPENDIX G Hazard and Risk

APPENDIX H Noise Impact Assessment

APPENDIX I Costing

APPENDIX J Water

APPENDIX K Greenhouse Gas

APPENDIX L Visual Impacts

APPENDIX M Ecology

APPENDIX N AHIMS Search

## DECLARATION

### **Declaration under Part 3, Schedule 2 of the *Environmental Planning and Assessment Regulation 2000***

#### Author of the Environmental Impact Statement

Name: Andrew Neil Address: 21 Jusfrute Drive, West Gosford, NSW, 2250

Qualification: Bachelor of Arts (History), Graduate Diploma in Urban and Regional Planning

#### Address of the Land to which this EIS Applies

The land subject to this EIS is located at 124 Lowes Mount Road, Oberon within the Oberon Local Government Area on the following Lots: Lot 1 DP 1085563, Lot 2 DP 1085563, Lot 26 DP 1200697, Lot 24 DP 1148073 and Lot 1 DP 1076346

#### Description of the Project to which this EIS Applies

This EIS examines the works that would be required for the Project. The key Project elements include:

- Allow for the construction of a dedicated Particle Board Manufacturing Line to allow Borg to continue their growth and remain internationally competitive
- Create a significant increase in long term employment opportunities within a regional area
- Provide additional infrastructure within existing buildings to value add to existing product
- Modernise the existing facility
- Allow for expansion to Lot 1 and 2 DP 1085563 for the purposes of a wood flake preparation area
- Construct a new automated storage warehouse part on Lot 24 DP 1148073 and part on Lot 26 DP 1200697
- Construction of hardstand on Lot 24 DP 1148073
- Allow for expansion to Lot 1 DP 1076346 for hardstand, water quality ponds and emergency catchment
- Rationalise the current Conditions of Consent under DA 27/95 that apply to a number of different lots, all under fragmented ownership and operation
- Allow for an increase in production by up to 500,000m<sup>3</sup>, with a commensurate increase in staff levels
- Boundary adjustment of Lot 1 DP 1076346 to rectify the current split zoning, consolidating the IN1 zoned land into Lot 26, retaining all the RU1 zoned land under the current Lot and DP
- Lot consolidation of all lots the subject of this application.

#### Assessment of the Environmental Impact of the Project

An assessment of the environmental impact of the Project is contained in this Environmental Impact Statement.

#### Declaration

Pursuant to clause 6(f), Part 3, Schedule 2 of the Environmental Planning and Assessment Regulation 2000,

I declare that this Environmental Impact Statement:

- a) Has been prepared in accordance with the requirements of the Environmental Planning and Assessment Act 1979 and the Environmental Planning and Assessment Regulation 2000;
- b) Contains all available information that is relevant to the environmental assessment of the Project to which this Environmental Impact Statement relates; and
- c) Contains information that is neither false nor misleading.

Andrew Neil



01 June 2016

## EXECUTIVE SUMMARY

### Introduction

This Environmental Impact Statement (EIS) has been prepared by The Design Partnership Pty Ltd on behalf of Borg Constructions Pty Ltd (Borg) for a State Significant Development (SSD) application for an expansion to an existing timber panel processing facility at Oberon, NSW.

Borg is seeking approval for the works at the existing facility to be increased through the addition of a particle board manufacturing line, including chipping facility, to the existing MDF manufacturing line, as well as minor additional site works and extension of the area covered by the consent. As part of the approval Borg is proposing to rationalise the existing approval for the facility, DA 27/95. This previous consent will continue to operate for other areas within the Oberon Timber Complex. However, all land owned by or operated by Borg Panels is to be excluded from the operation of this existing consent, to come under this new consent.

This consent will be issued under State Environmental Planning Policy (State Significant Development) 2008 as the Project is for a timber processing facility with a value of over \$30,000,000. Approval is being sought under Division 4.1 of the Environmental Planning and Assessment Act (1979) (the Act). This Environmental Impact Statement (EIS) has been prepared by The Design Partnership to meet the requirements of both the Act and the Environmental Planning and Assessment Regulation 2000. This EIS also addresses the Secretary's Environmental Assessment Requirements (SEAR's) which were issued to the proponent in April 2015.

### Site and Context

The existing facility is located within the existing Oberon Timber Complex (OTC), which is governed by an existing consent issued by the Department of Planning and Environment (The Department) (then Department of Urban Affairs and Planning) in DA 27/95. The OTC is located approximately 1.5km north of the Oberon CBD. The land on which the Project is located is owned by Borg Panels. The land identified as being within the Project is identified as:

Lot 1 DP 1085563, Lot 2 DP 1085563, Lot 26 DP 1200697, Lot 24 DP 1148073 and Lot 1 DP 1076346

The closest residential receiver is approximately 600m to the south of the Project site boundary, whilst a caravan park is located approximately 300m to the south. Both the nearest residence and the caravan park are separated from the site by un-associated industrial activities and a heavy vehicle bypass.

### Project Description

- Allow for the construction of a dedicated Particle Board Manufacturing Line to allow Borg to continue their growth and remain internationally competitive
- Create a significant increase in long term employment opportunities within a regional area
- Provide additional infrastructure within existing buildings to value add to existing product
- Modernise the existing facility
- Allow for expansion to Lot 1 and 2 DP 1085563 for the purposes of a wood flake preparation area
- Construct a new automated storage warehouse part on Lot 24 DP 1148073 and part on Lot 26 DP 1200697
- Construction of hardstand on Lot 24 DP 1148073

- Allow for expansion to Lot 1 DP 1076346 for hardstand, water quality ponds and emergency catchment
- Rationalise the current Conditions of Consent under DA 27/95 that apply to a number of different lots, all under fragmented ownership and operation
- Allow for an increase in production by up to 500,000m<sup>3</sup>, with a commensurate increase in staff levels
- Boundary adjustment of Lot 1 DP 1076346 to rectify the current split zoning, consolidating the IN1 zoned land into Lot 26, retaining all the RU1 zoned land under the current Lot and DP
- Lot consolidation of all lots the subject of this application.

### **Statutory Planning**

The Site is located within the Oberon Council LGA which is governed by the Oberon Local Environmental Plan (LEP 2013). However, the Project meets the criteria under SEPP (State and Regional Development) 2011. Therefore, the Project will therefore be assessed in accordance with Part 4, Division 4.1 of the Environmental Planning and Assessment (EP&A) Act as a State Significant Development (SSD).

Being declared as an SSD, the provisions of the LEP 2013 do not apply to the proposed Site. The Project is nevertheless consistent with the provisions of local, regional and State planning instruments and strategies which would otherwise apply to the proposal, including:

- State Environmental Planning Policy (State and Regional Development) 2011
- State Environmental Planning Policy 55 – Remediation of Land
- State Environmental Planning Policy (Infrastructure) 2007
- State Environmental Planning Policy 33 – Hazardous and Offensive Development
- Central West and Orana Regional Growth Plan

### **Identification of Issues**

An assessment of the potential environmental issues and associated level of risk was made for the Project based on issues raised:

- During the operations of the existing facility
- The SEARs issued for the Project
- In consultation with agencies
- Community feedback

This feedback and assessment created a hierarchy of environmental priorities and allowed for the identification and prioritisation of potential environmental issues. This allowed for the focus of the environmental assessment of the proposal to be targeted at those specific areas of concern.

These are as follows:

#### **High**

- Noise and Vibration
- Air quality

**Medium**

- Traffic
- Hazard and risk
- Visual impacts
- Greenhouse gas
- Ground and surface water

**Low**

- Ecology
- Heritage
- Waste
- Socio-Economic impacts
- Soil impacts

These are addressed in greater detail within the body of the report. However, the following provides for a summation of the issues and mitigation measures proposed.

**Noise**

A Noise and Vibration Impacts Assessment was prepared by Global Acoustics to examine the noise and vibration impacts of the construction and operational phases of the Project, as well as the cumulative impacts which may result from each phase of the Project.

This assessment utilised the figures that have been gained from undertaking an independent noise survey as well as the ongoing monitoring of existing operations at the site, as part of the EPA Licence and existing Conditions of Consent issues for the Oberon Timber Complex. These monitor the overall noise levels from both the Borg Panels operations and the other commercial operations in the area.

The assessment undertaken for the Project used these existing figures as a baseline from which to measure any changes as a result of the Project. Overall, the noise impacts from the Project are generally consistent with the noise levels generated by the existing development. This has been achieved through the implementation of new technology and significant attenuation to the existing facility, and international best practice being applied to the Project.

The investment in noise attenuation to be applied to the current facility by Borg will allow significant process expansion whilst maintaining or improving the levels of noise and vibration generated by the site.

**Traffic**

A Traffic Report was undertaken by SMEC to review the impacts of the proposed development, both during the construction of the Project, and also for the ongoing operating. This looked at both truck and light vehicle movements at the current facility, the anticipated levels of traffic generated during construction and the estimated heavy vehicle movements post-construction, during the operation of the facility.

This found that the existing road network was capable of absorbing the probable increase in traffic without any significant compromise.



## **Air Quality**

An air quality impact assessment was prepared by Stephenson Environmental Management Australia (SEMA) to review the impacts of the proposed development on air quality. As with noise, this measured the baseline (that is, the existing facility), made recommendations for improvements and then modelled the likely impacts from the cumulative operations.

This report concluded that the Project would be generally compliant with current IAC levels. This is due to the investment in pollution control measures for the existing plant to bring them up to a more appropriate level. The Project improves the overall air quality.

## **Hazard and Risk**

A Preliminary Hazard Analysis (PHA) was undertaken by Sherpa Consulting to assess the potential risk of the Project in accordance with the Applying SEPP 33 Hazardous and Offensive Industry Development Application Guidelines (DP&E, 1994). This concluded that the site operations do not constitute a hazardous or offensive industry.

No changes to these existing approved operations are proposed in the Project. As such, it was concluded that the Project would not substantially increase the potential for risk in the operations of this facility. However, as part of wider site upgrades, additional firefighting, fire water control and other safety systems will be provided.

Any fire system upgrades will need to be provided for in a Fire Safety Study that will be prepared in consultation with NSW Fire Brigades.

## **Visual Impacts**

A Visual Impact Assessment was undertaken by The Design Partnership in order to assess the potential impacts of the development on surrounding areas. This VIA was not undertaken in order to assess the current impacts of the facility or the surrounding industrial uses that make up the Oberon Timber Complex, but was instead designed to assess the impacts of the Project on the visual character of the area.

Due to the existing visual disturbance generated by the industrial land uses in the area, including existing infrastructure such as the chimneys, the overall visual impacts are considered to be generally low from most areas. One of the key reasons for this is that existing plant infrastructure to the east of the site shields much of the Project from view, meaning that only views from the north and west are generally impacted upon. And these views need to be read as part of the wider industrial context.

## **Surface and Ground Water**

A water cycle impact assessment was prepared by The Sustainability Workshop to review the impacts of the proposed development on both surface and ground water. The existing site stormwater operations take stormwater from the rest of the Oberon Timber Complex and process this water before discharge. This ensures that contaminants are significantly reduced.

As part of this application, an extensive upgrade to the existing stormwater management system will be implemented, with additional retention and catchment basins constructed. This will ensure that stormwater

and any liquids from a potential event can be adequately retained on site prior to treatment, reuse or disposal. This significantly reduces the potential impacts on the surrounding environment in an emergency event.

### **Other Environmental Considerations**

As part of the preparation of the EIS for the Project, a number of other potential environmental impacts were considered. This included ecology, soils, waste, heritage and social and economic impacts. These are more minor matters for consideration as a result of the site characteristics, which is largely a cleared, or already developed, industrial zoned parcel with very little vegetation.

It is considered that overall the Project will have minor to positive impacts in these regards, provided that the recommended mitigation measures contained within this report are implemented.

### **Environmental Management**

The Project has had a number environmental management measures recommended in order to minimise the potential impacts of the Project. These have been compiled on an issues basis, as informed by the EIS, consultant reports and information received during consultation.

It is important to note that as the Project is already operating under an existing consent as part of the wider Oberon Timber Complex approval there are already a range of environmental and safety management plans and controls in place. Where appropriate, these management plans have been prepared in consultation with key stakeholders, government bodies and regulatory authorities.

It is acknowledged that some of these management plans will need to be updated to include additional measures identified within the EIS of the Project. This will involve additional consultation and discussion with those key stakeholders.

### **Justification of the Project**

The Project will have significant economic benefits for the local, regional and state economies. In particular, this will reinforce the important role that timber and timber products have for the local economy of Oberon and the greater Mid-West of the state. The Project minimises the amount of road transport for particle board products, ensures production is located close to the raw materials, and provides additional investment and employment opportunities in a smaller, regional community. This is achieved with minimal environmental impacts, and with significant care taken to avoid conflict with surrounding land uses.

### **Conclusion**

The Project the subject of the EIS has been reviewed, described and possible alternatives outlined. Where potential environmental impacts have been identified, mitigation measures have been recommended to ensure that any impacts are at an acceptable level.

This EIS demonstrates that the Project is both permissible and will have a significant range of benefits, that when viewed relative to the minimal environmental impacts justify consent being granted.

## PART A – PROJECT BACKGROUND

### 1.0 INTRODUCTION

#### 1.1. Overview

The Design Partnership has been engaged by Borg Construction to prepare an Environmental Impact Statement for the construction of a Particle Board manufacturing facility, modifications to existing MDF Board manufacturing facility and general site works (the Project) at the existing Borg Panels facility at 124 Lowes Mount Road Oberon. This Project will be undertaken on Lot 1 DP 1085563, Lot 2 DP 1085563, Lot 26 DP 1200697, Lot 24 DP 1148073 and Lot 1 DP 1076346

The existing development on the site consists of a mix of elements that have been approved and constructed as part of previous applications under Part 3A (repealed) of the Environmental Planning and Assessment Act 1979 (EP&A Act) and modifications to that consent issued under S.75W (repealed) of the EP&A Act. This Project seeks to add a number of additional land holdings to the existing approval, whilst also removing a number of large holdings that currently form part of the Oberon Timber Complex.

As the ownership of the area covered by the existing approval (DA 27/95) is dispersed and different operations have different requirements, it is considered that it is more appropriate for the operations of Borg Panels to operate under a separate consent.

The value of the new works is \$106,125,000. This is not including the value of the existing site and operations. The Project will bring all elements of the Borg operations on site under the one consent, allow the expansion on to adjoining land parcels, and allow for the expansion of site operations.

This represents a significant investment in Australian manufacturing, providing additional employment opportunities for regional workers at a time when Australian manufacturers are closing operations and off-shoring manufacturing jobs.

Following confirmation from the Minister in April 2015 that the Project could be assessed as SSD, the Secretary General of the Department of Planning and Environment (DP&E) issued the Secretary's Environmental Assessment Requirements (SRs) for the Project EIS. The SR's form the basis of this EIS.

#### 1.1.1. Existing Operations and Approval

The subject land is currently developed for the purposes of a manufacturing facility for Medium Density Fibre board (MDF). This existing development includes:

- A number of large industrial scale buildings which contain various processes involved with the manufacture of MDF and MDF products;
- Concrete hard stand areas between the buildings
- An existing two-storey administration/amenities building with associated staff car parking
- Various necessary items of infrastructure including venting, conveyors and the like.
- Other facilities/buildings associated with the use of the land (including maintenance areas, security entry/exit gates, weigh bridges and the like.
- Fencing, landscaping, drainage and other site facilities.

The current maximum output of the site is site 280,000m<sup>3</sup> of MDF board annually.

The site currently operates under consent 27/95, issued by the Department. This covers the wider Oberon Timber Complex. In addition to the conditions of consent under this approval, an Environmental Protection Licence (EPL) applies to the site.

## 1.2. Project Outline

The Project is the expansion of the existing Borg Panels timber processing facility. The components of the expansion are:

- Allow for the construction of a dedicated Particle Board Manufacturing Line to allow Borg to continue their growth and remain internationally competitive
- Provide additional infrastructure within existing buildings to value add to existing product
- Modernise the existing facility
- Allow for expansion to Lot 1 and 2 DP 1085563 for the purposes of a wood flake preparation area
- Construct a new automated storage warehouse part on Lot 24 DP 1148073 and part on Lot 26 DP 1200697
- Construction of hardstand on Lot 24 DP 1148073
- Allow for expansion to Lot 1 DP 1076346 for hardstand, water quality ponds and emergency catchment
- Rationalise the current Conditions of Consent that apply to a number of different lots, all under fragmented ownership and operation
- Allow for an increase in production by up to 500,000m<sup>3</sup>, with a commensurate increase in staff levels
- Boundary adjustment of Lot 1 DP 1076346 to rectify the current split zoning, consolidating the IN1 zoned land into Lot 26, retaining all the RU1 zoned land under the current Lot and DP
- Lot consolidation of all lots the subject of this application.
- Surrender of the existing approval (DA 27/95) issued by the Department of Planning for the land identified as being the subject of this application

## 1.3. Location and Setting

The Oberon LGA covers an area of 3,626km<sup>2</sup> and lies approximately 195 kilometres to the west of Sydney in the NSW Central Tablelands. See Figure 1.



The LGA borders the City of Lithgow to the north, Blue Mountains to the east, Wollondilly to the south-east, Goulburn/Mulwaree and Upper Lachlan to the south and Bathurst Regional to the south-west.

The LGA has a population of 5,270 with the majority of the population living in the Oberon township (being 2,459 people). In addition to the main settlement of Oberon there are a number of small villages (including Black Springs, Burruga and Mt David) as well as rural localities.

The primary industries within the LGA are agriculture (including sheep and beef farming as well as plantation timber growing) as well as industries associated with

Figure 1: Site Context

logging, sawmilling and timber dressing along with the manufacture of wood products.

The subject land is located to the northern outskirts of Oberon to the east of Lowes Mount Road. The Borg operations are part of the wider Oberon Timber Complex, with facilities operated by a number of separate companies, which generally involve timber product manufacture.

The subject land is identified as Lot 1 DP 1085563, Lot 2 DP 1085563, Lot 26 DP 1200697, Lot 24 DP 1148073 and Lot 1 DP 1076346

Lot 1 and 2 DP 1085563 are currently occupied by a fuel depot and a now vacant frame and truss manufacturing facility. Lot 26 are currently occupied by the existing manufacturing facility, Lot 1 DP 1076346 is located to the east of current facility and is vacant, split zoned industrial/rural zoned land. This land is currently undergoing a minor boundary adjustment to extend further to the south. This application also seeks to subdivide the land to create one lot of RU1 zoned land and one lot of IN1 zoned land. See Figure 2.





Figure 2: Land Subject to Application

## 1.4. The Proponent

After commencing the manufacture of thermolaminated vinyl doors in Charmhaven in the early 1990's, Borgs has established itself as a leading Australian manufacturer of melamine panels and components for all joinery applications.

Borgs manufactures a range of joinery materials including Polytec Doors (primarily for kitchen and bathroom use), white melamine panels, decorative melamine board products, shelving components, and Createc. With a commitment to Australian manufacturing, Borg focuses much of its activities on manufacturing plants throughout the East Coast (including a world class manufacturing plant at Charmhaven, the Oberon complex and a 45,000m<sup>2</sup> manufacturing and distribution centre at Somersby)

### Purchase of the Oberon MDF Facility

Experiencing significant growth over the past 2 decades, Borgs has continued to invest in leading edge, world class machinery across its manufacturing sites. Ensuring the production of the highest quality product in the most cost effective manufacturing processes is integral to Borg's intent of delivering superior value to its customers.

In March 2010, Borgs acquired the former Carter Holt Harvey Oberon Medium Density Fibreboard (MDF) facility at Oberon and a few months later, acquired the associated JeldWen factory located adjoining the MDF plant.

This facility manufactures a range of Customwood MDF products include:

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

## 1.5. Project Need and Benefits

The Project is needed to help meet demand and supply of the existing range of Borg products. Currently, particle board is brought in from interstate. The Project will:

- Allow Borg Panels to manufacture their own particle board product, utilising local plantation timber and recycled wood waste from on-site. Locating the Project at Oberon significantly minimises transport impacts, minimising both cost and the environmental impacts from transporting the untreated particle board to the site for processing
- Directly benefit the region through increased investment and employment generation from the operation of the Project and the associated employment in transport
- Increase the efficiency in which the product can be delivered to an increasing market
- There will be a significant direct and indirect benefits for the local region. There will be an increase in employment at the plant itself. There will also be a flow-on increase in employment in supporting industries, such as engineering, forestry, construction and transport, as well as on retail and hospitality.



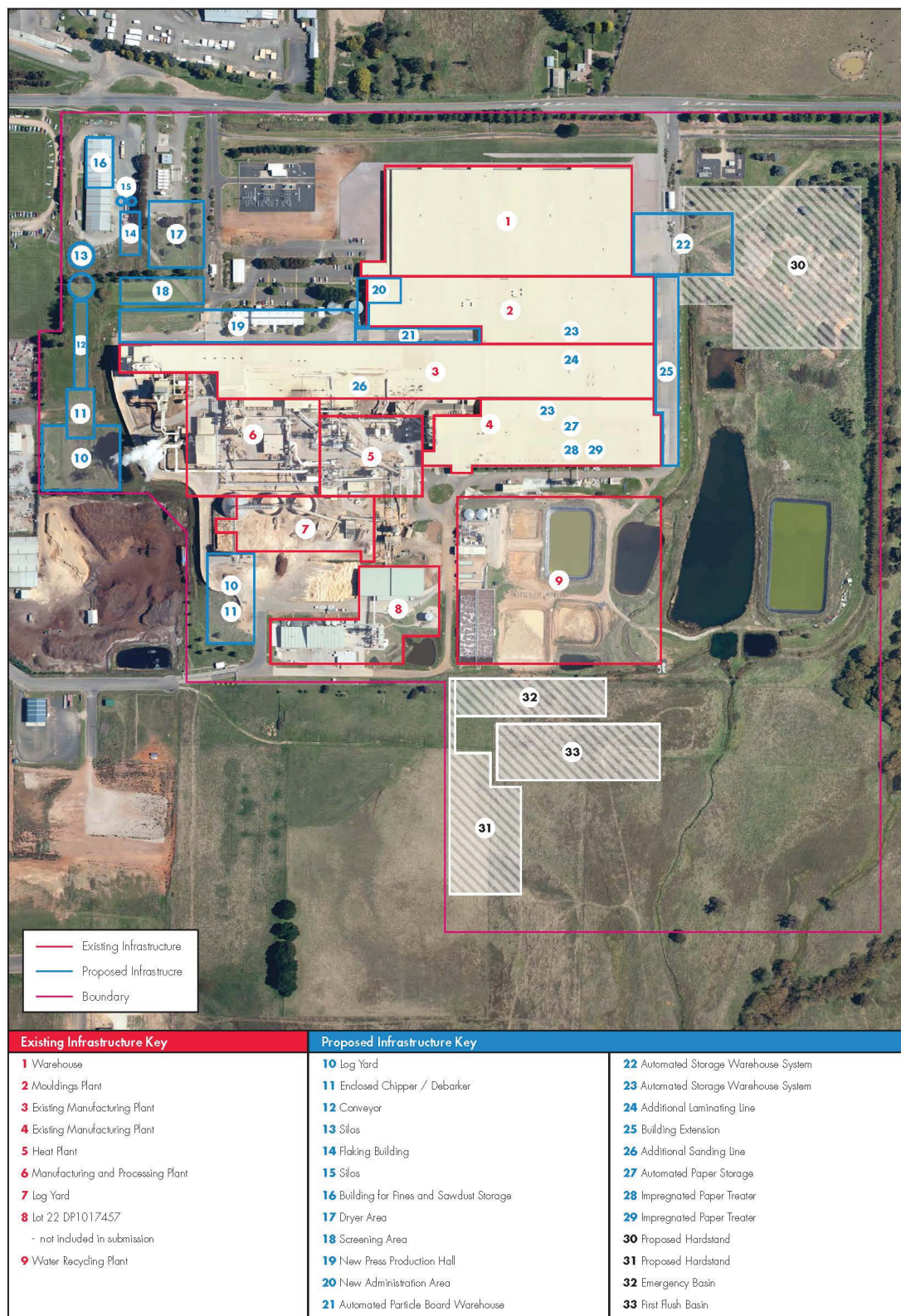


Figure 3: Project Description



## 1.6. Project Description

The process description for the particle board process is as follows, with the numbers relating to the key on Figure 3 above.

Plantation timber logs are brought to site from external locations and processed through a timber yard (10). This includes processing the timber through an enclosed debarker and chipper (11) – the enclosing of this piece of equipment significantly reduces the amount of noise generated. The chipper is to reduce the timber to a consistent particle size. Recycled boards and reclaimed timber, such as timber from demolished buildings can also be introduced at this point in time. Once the chips have been produced the product is screened to ensure consistency in size and any foreign ferrous contaminants are removed using magnets. This chip is then stored in the chip silos.

These chips are then moved through (via belts and conveyors) (12) to silos (13) prior to being further reduced in size using Knife Ring Flakers, enclosed within the flaking building (14). These Knife Ring Flakers are designed to produce the optimum macro sized particles for the proposed processing methods. These particles are then stored in additional silos (15) prior to being feed into the drier. Timber fines (16) is also introduced to the particles at this point in time. These are stored within an existing industrial building.

The dry saw dust and wet wood particles are then dried in a rotating drum drier (17). Any small particles generated during the drying process which are smaller than required are removed using cyclone extractors. Any surplus air generated which is not required for the drying process is cleaned using a Wet Electrostatic Precipitator prior to being released to the atmosphere as clean air. Once dry and processed in this manner, the particles are screened (18) for quality and stored in another silo.

Any appropriate sized particles and dust are sent to storage, whilst any oversize particles are sent to a grinding mill to reduce them to an appropriate size. These particles are then blended with glue and additives (usually a blend of urea formaldehyde with a paraffin wax emulsions and a catalyst to accelerate the reaction) in a specifically designed ribbon blender.

After blending, the now resinated particles are sent to the appropriate mat forming stations (19). The forming stations are designed to ensure that there is an even distribution of particles across both the width and the thickness of the board. The mat is then weighed and adjusted electronically to ensure that the finished product has a consistent density.

The forming line (19) then transports the layered mat in a continuous format to the press, while simultaneously measuring moisture and removing any remaining ferrous material. The forming line is able to reject and recycle the mat before pressing if the specified product parameters are not of a suitable standard. Any rejected material is reused on site. The press (19) then applies the specified heat and pressure required to cure and consolidate the board in order to meet or exceed the relevant Australian Standards. This process is remotely controlled from the press control room.

Once processed, the pressed board is then cut square, checked to ensure it meets the required standards, cooled and stored in an automated storage system. Once cooled and cured, the boards are removed from storage and processed through the sander to ensure they meet final surface quality and thickness standards.

The proposed particle board operations will generate an additional 500,000m<sup>3</sup> of Particle Board whilst maintaining current approved MDF production capacity.

These new operations will be housed in new industrial buildings, clad in a material to match the existing development on site. Works to the existing manufacturing lines will be housed within existing buildings, with no significant external alterations, with the exception of the demolition and relocation of the administration block in the centre of the site.

## 1.7. Environmental Impact Assessment Process

### 1.7.1. Designated Development

Schedule 3 of the *Environmental Planning and Assessment Regulations 2000* sets out the criteria for designated development. The initial investigations identified that the Project would meet the requirements for a Wood Processing Facility under this Schedule. This states:

*Wood or timber milling or processing works (being works, other than joineries, builders supply yards or home improvement centres) that saw, machine, mill, chip, pulp or compress timber or wood:*

*(a) that have an intended processing capacity of more than 6,000 cubic metres of timber per year and:*

*(i) are located within 500 metres of a dwelling not associated with the milling works, or*

*(ii) are located within 40 metres of a natural waterbody or wetland, or*

*(iii) burn waste (other than as a source of fuel), or*

*(b) that have an intended processing capacity of more than 50,000 cubic metres of timber per year.*

The overall intended processing capacity is approximately 750,000 cubic metres per year.

Therefore, the Project meets the definition of designated development.

The approval path is further discussed in Section 7 of this document.

### 1.7.2. Environmental Assessment Requirements

On April 14 2015, Borg Panels submitted a request for the Project SEARs to the DP&E. In order to inform the SEAR's for the Project, DP&E consulted with a number of key agencies for input regarding the assessment methodologies and requirements of the EIS. The Project specific SR's are detailed in Section 9.1.

### 1.7.3. Stakeholder Consultation

Extensive stakeholder consultation has been undertaken. This has included targeted stakeholder consultation with government agencies, an open community consultation session, Council briefings and meetings with local tourism association.

### 1.7.4. EIS Exhibition

In accordance with Section 89F of the EP&A Act, this EIS will be placed on public exhibition for a period of not less than 30 days. During this time interested parties will be able to review Project documentation and provide feedback for consideration by the proponent and DP&E.

## 1.8. Nomenclature and Abbreviations

**AADT:** Annual average daily traffic

**ABS:** Australian Bureau of Statistics

**AHD:** Australian Height Datum

**DEC:** Department of Environment and Conservation

**DECCW:** Department of Environment, Climate Change and Water

**DP&E:** Department of Planning and Environment

**EIS:** Environmental Impact Statement

**EPA:** Environment Protection Authority

**EPBC Act:** Environment Protection and Biodiversity Conservation Act, 1999

**EP&A Act:** Environmental Planning and Assessment Act, 1979

**EPL:** Environment Protection Licence

**ESD:** Ecologically Sustainable Development

**FBA:** Framework for Biodiversity Assessment

**GHG:** Greenhouse Gas

**ISEPP:** State Environmental Planning Policy (Infrastructure) 2007

**LGA:** Local Government Area

**OEH:** Office of Environment and Heritage

**POEO Act:** Protection of the Environment Operations Act 1997

**RMS:** Roads and Maritime Services

**SEARs:** Secretary's Environmental Assessment Requirements

**SEPP:** State Environmental Planning Policy

**SEPP 33:** State Environmental Planning Policy 33 - Hazardous and Offensive Development

**SSD:** State Significant Development

**TIA:** Traffic Impact Assessment

**VPD:** Vehicles per day

### **1.9. Structure of this Report.**

This report is generally structured as follows:

**Part A** – Project Background.

**Part B** – Location and Context.

**Part C** – Project Need and Alternatives.

**Part D** – Project and its Management.

**Part E** – Issues Identification.

**Part F** – Environmental Impact Assessment.

**Part G** – Environmental Management and Monitoring.

**Part H** – Project Justification.

**Part I** – EIS Findings.

**Part J** – References.

## PART B – LOCATION AND CONTEXT

### 2.0 REGIONAL AND LOCAL CONTEXT

#### 2.1. Regional Overview

Oberon is located in the Central Plains region of New South Wales, 46km south east of Bathurst, 77kms west of Katoomba and 195km west of Sydney. The town itself has a population of 2,459 under the 2011 Census. Oberon is the administrative and population centre of Oberon Shire Council, and the local government area has a total population of 5,270.

#### 2.2. Surrounding Land Use

The Project is located within an existing industrial zoned area. Industrial zoned land adjoins the Project to the south and west. Rural zoned land adjoins the site to the north and east.

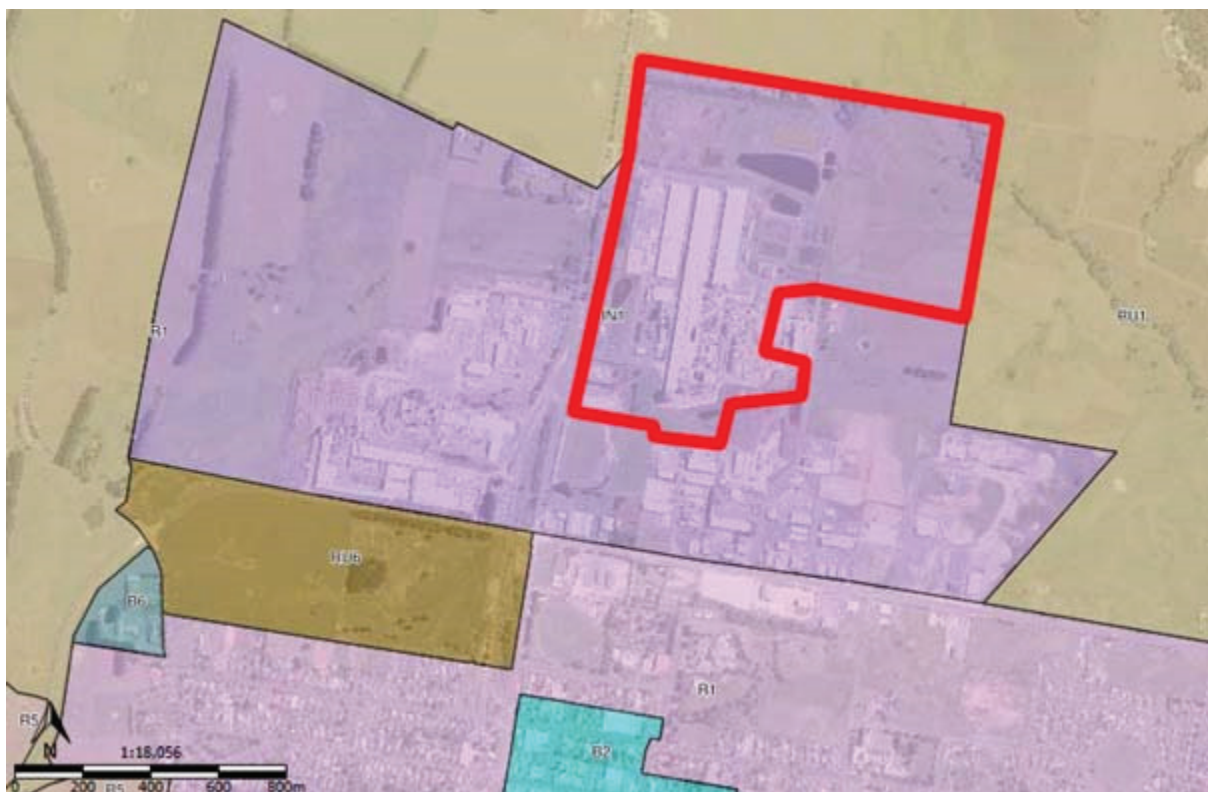


Figure 4: Zoning Context

#### 2.3. Land Use Context

The site is located within the existing Oberon Timber Complex, which is covered by a 1995 Consent issued by the Department of Planning and Environment. This complex includes a number of separate land owners and operations which operate independently of each other. Land on the opposite side of Lowes Mount Road is used by a number of different operators, including Highland Pine Products and Structafloor. These are not associated with the Project.

Land to the immediate south and south east comprises an industrial subdivision, with varied operators, including self-storage establishments and landscape supply yards. The dominant immediate land use context is industrial.

### 3.0 SITE LOCATION AND HISTORY

#### 3.1. Site Location and Description

The Project is located at 124 Lowes Mount Road, Oberon. Oberon lies approximately 125 kilometres to the west of Sydney in the NSW Central Tablelands. The site itself is located approximately 1.5km from the centre of Oberon.

There is extensive existing development on the site, related to the existing approved use of the site as part of the existing Oberon Timber Complex. This facility incorporates a number of different companies under different ownership. The land the subject to this application is located on the eastern side of Lowes Mount Road, and is under the sole ownership of Borg Panels or subsidiary companies.

#### 3.2. Ownership and Legal Description

The subject land is identified as Lot 1 DP 1085563, Lot 2 DP 1085563, Lot 26 DP 1200697, Lot 24 DP 1148073 and Lot 1 DP 1076346. All land is under the ownership of Borg Panels.

#### 3.3. Site History

The following extracts are taken from 'The Thematic History of Oberon Shire' authored by Philippa Gemmell-Smith (March 16, 2004) and is included to provide a history of timber products manufacture in Oberon Shire. Importantly the publication includes extensive details in relation to the subject land.

A review of history publications reveals that the Oberon Shire has a significant timber industry, with timber plantations being established as far back as the late 1920s/early 1930's:

*'The Forestry Commission of NSW recognised the suitability of the Oberon district for the growing of softwoods, and the first pines were planted in the Vulcan and Jenolan State Forests in 1929. In 1930 the Oberon Prison Afforestation Camp was established and began annual plantings in the Gurnang State Forest in 1931. Pine planting was done as Depression relief work.'*

*'After trials of Pinus radiata, Monterey Pine, was recognised as the most successful pine species. During the 1930s large areas of Crown land were reserved for forestry purposes. During World War II the Cotton family of Broken Hill contracted to supply sawn timber for the Broken Hill North Mine, it being a wartime measure to replace the timber imported from America. The Cottons chose Oberon as a suitable source, and sent Robert Cotton and his wife, Eve, who moved there in 1941 to build a sawmill for cutting mine timbers. They lived first at Dulce Domum. They bought Cunynghame and Star's sawmill and transferred its milling and the log licenses to Oberon and started to build the factory. It began supplying at the end of 1942 under the name Timber Industries Pty Ltd. In 1946 Monty Cotton, returned from war service and joined the team. The following year they bought Beresford Brown's sawmill at Beaconsfield (Black Springs). This gave the Cottons the sawmilling licenses over the whole Oberon shire'*

In the 1960's particle board manufacture commenced in Oberon:

*'The first particle board factory in Australia, Pyneboard, was in Oberon. When the Forestry Commission advertised the rights to purchase the thinnings from pine plantations in the Oberon area, a joint venture between CSR, Timber Industries and Fletchers (a New Zealand company that was already producing particle board) was formed, and established the factory in 1961. Pyneboard created jobs for nearly 200 people. In 1964 CSR and APM took over Pyneboard as equal shareholders.'*



Since that time there have been a number of additions, alterations and changes in ownership:

*'In 1978 CSR purchased Pyneboard outright and installed a new press to produce thin particle board. Pyneboard was developed into Structaflor, the particle board flooring plant in 1979. In the 1980s the timber industry ceased to be a locally owned industry. It started on the path of rapid expansion to compete on the global market. In 1978 the Cottons sold Timber Industries sawmill to Blue Metal Industries, and who sold to Boral in 1982.'*

In the 1980's there was a significant expansion of the industries in the area:

*'A massive expansion if the industry followed with the building of another fibreboard processing plant by AMCOR/Elders Resources NZ Forest Products Limited. With the decision to build the plant Oberon reaped the benefit of access to natural gas in 1987, before other towns in the Central West.*

*Fibron, the world's first fully computerised medium density fibreboard plant opened in 1988, and in 1989 was sold to CSR. In 1994 CSR won a tender issued by State Forests of NSW for the right to purchase an additional 380,000 tonnes of sawlogs and small pulpwood logs per year. Another massive expansion began, this one costing \$350 million, doubling the size of the MDF (medium density fibreboard) factory, with a new sawmill and a tannin extraction plant. The building process was a huge boon to the town, especially the accommodation sector. CSR Timber Products sawmill opened in November 1996. Woodchem, the resin plant, was built by London based company ACM Wood Chemicals and opened in 2000.*

*Also in 2000 the major part of the timber factories ceased to be Australian. The expansion had overstretched CSR. In 1999 it was making a loss in its Oberon operations, and in May 2000 sold most of its nationwide timber interests to Carter Holt Harvey, a New Zealand forestry company 50% owned by the U.S. giant International Paper. Its remaining plant in Oberon, FeaturPanels was sold to JELD-WEN, an American multi-national but privately held corporation.*

*CSR's share in the 50/50 proposed joint sawmilling venture with Boral was also taken over by Carter Holt Harvey. Called Highland Pine Products their partnership gave them the volume of logs to get the base cost down and to compete on the world market.*

*In preparation for this move Boral rationalised its operations closing its Bathurst section. Only months after the joint venture, Highland Pine announced 59 permanent jobs would be lost. At the same time the company announced a \$26 million expansion to amalgamate the two sawmills (CSR's and Boral's) into one on the Carter Holt Harvey site.*

*In May 2001 Carter Holt Harvey launched Customwood, the internationally known brand name of Oberon's sister plant in New Zealand, in Oberon. The move was designed to increase the export market, particularly to China and the United States. In 2002 the company announced marketing alliances with Sierra Pine to extend its marketing to North America, and with IPPM in China.'*

Carter Holt Harvey's sold the Customwood site in 2010 to Borg, and over the subsequent 6 years a range of sales, separations and consolidation of uses has taken place. Various lots and uses have been sold off to separate parties.

This Project seeks to create a new consent for the land owned by Borg Panels, allowing the original DA 27/95 to continue to operate for the Carter Holt Harvey and Boral owned land. The land subject to this Proposal will be removed and covered under the new approval. The remaining land will continue to operate under the 1995 consent.

### 3.3.1. Oberon Timber Complex

Experiencing significant growth over the past 2 decades, Borg has continued to invest in local manufacturing utilising leading edge, world class machinery across its sites. Ensuring the production of the highest quality product in the most cost effective manufacturing processes is integral to Borg's intent of delivering superior value to its customers.

In March 2010, Borgs acquired the former Carter Holt Harvey Oberon Medium Density Fibreboard (MDF) facility at Oberon and acquired the associated JeldWen factory located adjoining the MDF plant shortly after.

This facility manufactures a range of Customwood MDF products include:

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

Borg is now one of the leading employers in the Oberon region, and the plant forms part of the wider Oberon Timber Complex.



## PART C – PROJECT NEED AND ALTERNATIVES

### 4.0 OBJECTIVES AND PROJECT NEED

#### 4.1. Project Objective

The objective of the Project is to establish an expansion to the existing Borg Panels timber processing facility. The key components of this are:

- New plant and buildings in the south and south-west of the site (items 10-18 on Figure 3)
- Additions to the western side of the existing building (items 19-21 on Figure 3)
- Additions to the northern side of the existing building (items 22 and 25 on Figure 3)
- A new on-grade hardstand area in the north-west corner of the site (item 30 on Figure 3)
- New basins and a new hardstand area east of the existing water recycling plant (item 31, 32 and 33 on Figure 3)

In addition, upgrades to plant inside existing structures on the site are proposed in order to modernise the MDF facility.

The aim of the Project is to create a modern, streamlined timber processing facility to provide high quality, Australian made MDF and Particle Board products in order to meet the ongoing demand for Borg products.

##### 4.1.1. Biophysical Objectives

The biophysical objectives for the Project are to:

- Undertake the Project in a manner which allows for a general improvement in the impacts on surrounding properties
- Minimise the potential impacts to groundwater through the provision of appropriate detention basins for both spills and collection of firewater
- Minimising potential downstream impacts through the appropriate collection and treatment of stormwater on site.

##### 4.1.2. Socio-Cultural Objectives

The socio-cultural objectives for the Project are:

- To minimise the impact of the Project on the community with a focus on appropriately managing potential impacts from:
  - Noise; and
  - Air quality.
- To maintain and operate the Facility in a manner that minimises hazards and risks;
- To operate the Facility in a manner that safeguards the amenity of the nearby urban areas; and
- To maintain an ongoing dialogue with the community regarding the Project and future changes to the Facility.

#### 4.2. Project Need

Borg Panels currently relies on external providers of particle board. These external providers are a mix of off-shore and inter-state suppliers. The Project is designed to allow for Borg to be entirely self-sufficient in this regard, creating a streamlined process in which all major components and products are produced in house rather than relying on external providers. This significantly reduces costs and the potential for the delay.

### **4.3. Project Benefits**

The Project has significant benefits, both for Borg as a company and for the wider region. From a company perspective, the Project significantly streamlines the production process, and further cements their reputation as one of the industry leaders. From a regional perspective, the Project creates significant additional employment opportunities for the wider Orana/Central West region, which has recently experienced additional job losses with the closure of the Electrolux plant at Orange. Many of the other manufacturing operations in the region are reliant on the mining industry, which goes through wide fluctuations based on the global commodities market. The Project represents a much more stable industry with a much more stable employment base.

## 5.0 ALTERNATIVES CONSIDERED

### 5.1. Project Alternatives

The following alternatives have been considered by Borg Panels during the feasibility and project planning stages of the original Project Approval, as well as when considering potential alternatives to increasing the capacity and manufacturing base of the existing Facility:

- A 'do nothing' option whereby the Project would not be undertaken;
- Alternative sites in New South Wales; and
- Alternative sites outside New South Wales.

These options are discussed below.

#### 5.1.1. Do Nothing

The 'Do Nothing' approach is one which provides significant uncertainty for the operations of the business. By constructing such a plant, there is a guaranteed supply chain in to the future. Without such a facility, Borg Panels is restricted to sourcing Particle Board from outside companies, which has problems associated with ensuring high production standards are continually met. In addition, the transportation of the finished product from outside the site adds significant cost and social and environmental impacts. As a result, the ongoing Do Nothing approach, currently used for the site, is not considered to be appropriate.

#### 5.1.2. Alternative Locations

The existing facility is located within the boundaries of a significant timber complex, located close to large forestry plantations, from which much of the timber used is sourced.

The establishment of an alternative location would result in the significant duplication of resources that are already in existence at the Oberon Timber Complex, as well as the duplication of infrastructure such as warehouses, chipping yards and the like. The end product would then need to be transported back to the existing factory for processing, significantly increasing transport costs and environmental impacts.

As such, it was not considered appropriate to further consider alternative location.

#### 5.1.3. Preferred Option

The preferred option is for the works to be undertaken on the current Borg Panels landholdings, located within the Oberon Timber Complex. The preferred option is the optimal option for the following reasons:

- It is located in close proximity to the main timber growing area currently servicing Borg Panels, minimising transport requirements and impacts
- It is located in an existing MDF processing facility, allowing both MDF and Particle Board to be manufacture side by side, minimising product wastage and materials that cannot be recycled
- The legislative environment has established the importance of the Oberon Timber Complex, as illustrated by the Buffer Zone established in the Oberon Local Environmental Plan
- The location minimises the requirements for the duplication of infrastructure
- There is extensive disturbance on the site, and the areas that are to be extended in to are either existing industrial operations, or land zoned for industrial purposes, minimising clearing

The existing elements of the Facility have been subject to several environmental assessments and are currently operating in accordance with a Project Approval (27/95) and Environmental Protection Licence (EPL 3035).

When considered against the alternative options, the preferred option also has the following key benefits that couldn't be achieved by the alternatives considered:

- Providing capital investment and multiplier effects within the economy of the Central West/Orana region generally, and the Oberon Local Government Area specifically; and
- Improving the efficiency of the supply of manufactured timber product.
- Minimising environmental impacts through locating the processing facility in close proximity to the main source of the raw timber
- Minimising the current air quality and noise impacts of the current, outdated, plant.

The Preferred option is detailed fully in Part D.

In order to demonstrate that the preferred option can achieve these benefits while continuing to have minimal community or environmental impacts a detailed impact assessment has been undertaken and is contained in Part F of this EIS. Where there is potential for impact to occur, mitigation measures have been recommended to manage impacts to acceptable levels.

## PART D – PROJECT AND MANAGEMENT

### 6.0 PROJECT DESCRIPTION

#### 6.1. Overview

The Project is for the expansion of an existing timber manufacturing and processing facility. The major change to the existing approval for the site is to provide for a facility to manufacture particle board. Particle board manufacturing involves both the processing of virgin wood, residual wood waste from sawmills and the recycling and processing of appropriate used wood to create suitable sized particles. These are then processed to form particle board. In addition to this, expansion to existing MDF and laminating operations are to be undertaken. These are largely to be located within existing structures on site.

##### 6.1.1 Particle Board Facility

Particleboard is defined as a panel product manufactured from lignocellulosic materials, primarily in the form of discrete particles, combined with a synthetic resin or other suitable binder and bonded together under heat and pressure. The primary difference between particleboard and other reconstituted wood products, such as waferboard, oriented strandboard, medium density fiberboard, and hardboard, is the material or particles used in its production. The major types of particles used to manufacture particleboard include wood shavings, flakes, wafers, chips, sawdust, strands, slivers, and wood wool. For the purposes of this description, particleboard pertains only to panels manufactured from a mixture of wood particles or otherwise from wood particles other than wafers and flakes. (Wood Products Industry 2002).

Although some single-layer particleboard is produced, particleboard generally is manufactured in three or five layers. The outer layers are referred to as the surface or face layers, and the inner layers are termed the core layers. For this process we are manufacturing with 3 x layers. Face material generally is finer than core material. By altering the relative properties of the face and core layers, the bending strength and stiffness of the board can be increased.

The general steps used to produce particleboard include raw material procurement or generation, classifying by size, drying, blending with resin and sometimes wax, forming the resinated material into a mat, hot pressing, and finishing.

The general process for the proposed production of particle board can be broken into 9 areas.

- (Area 1 – Fresh Wood) Production of chips from fresh round wood
- (Area 2 – Materials Handling) Production of chips and flakes from waste wood
- (Area 3 – Flaking) Production of flakes from fresh produced chip.
- (Area 4 – Drying) Wood Drying process
- (Area 5 – Sorting) Sorting and Cleaning of dried chip.
- (Area 6 – Gluing) Addition of Resin and Chemicals
- (Area 7 – Forming and Pressing) Forming, Pre-Pressing and thickness Pressing of chip.
- (Area 8 – Trimming to Stacking) Cutting, Cooling and Stacking
- (Area 9 – Sanding Finishing) Final sanding and processing of finished product.

A simplified flowchart of the above process areas can be viewed in figure 5 below. A detailed flowchart will be provided with this submission for reference of process flow volumes and process streams. This document is not intended for public exhibition, as it includes a number of pieces of information that relate to intellectual property and innovations in production techniques which would damage Borgs competitive advantage if competitors were given access to it.

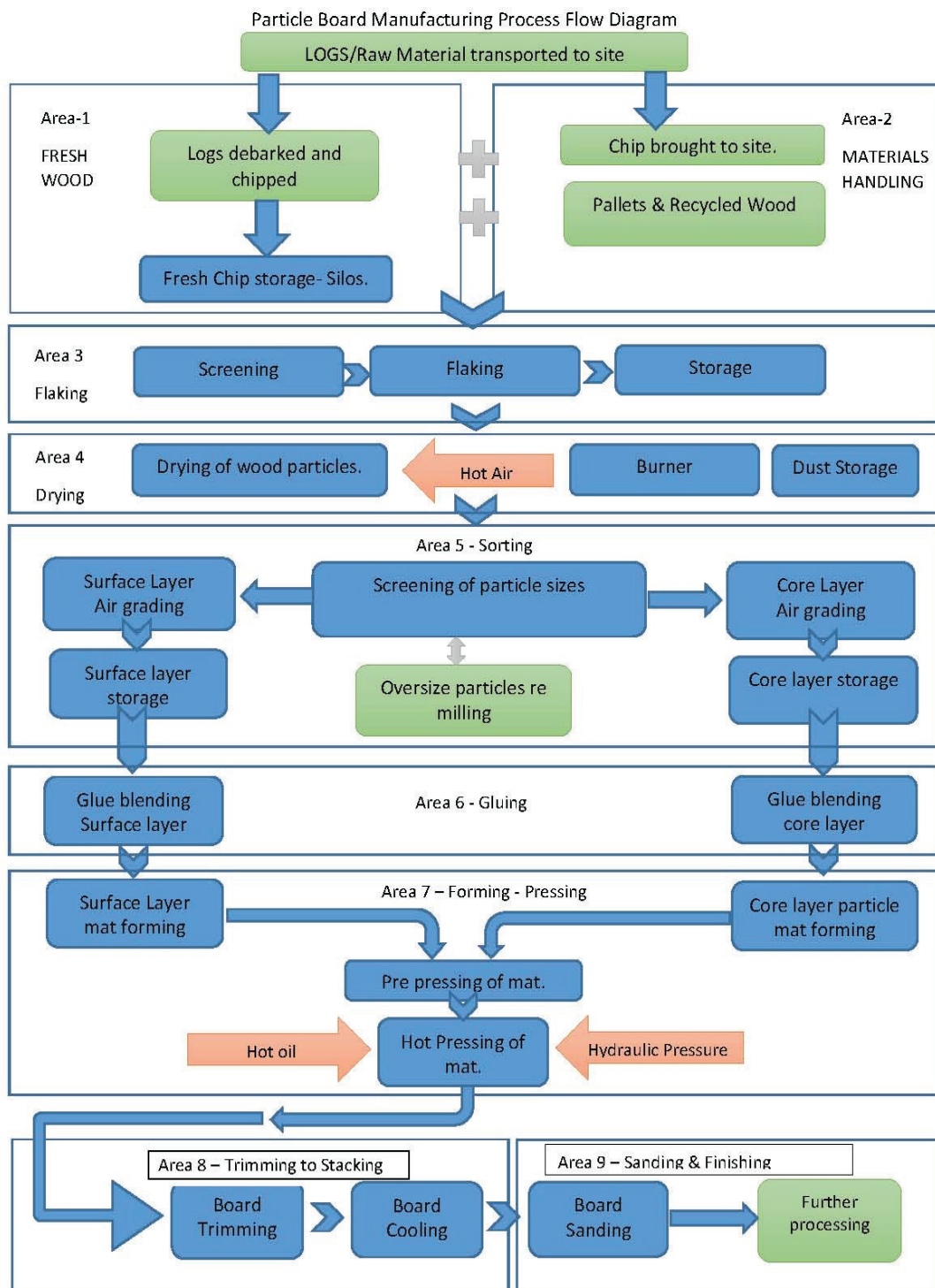


Figure 5: Particle Board Manufacturing Process Diagram

### **Area 1 – Fresh Wood: Production of chips from fresh round wood**

Typically, round wood (Pine log) is brought onto site via road transport and stored in a holding area ready for feeding into the chipper. Other wood is stored on site from either external urban waste supplies, external In-Forrest chipping or site chipped waste products.

This log is fed via debarking unit to remove the bark from the log, then a chipper to break down the log into chip size. The common chip size most suitable for particle board products range between 25 and 35 mm. This material is chipped at approximately 1000m<sup>3</sup>/hr and fed to the 2 x 13000m<sup>3</sup> storage bins.

All fresh chip is stored in these 2 x silos that are covered from external wind and weather elements. These chips are then fed through into Area 3 for screening and size processing via a roller-screen and ring flakers.

### **Area 2 – Materials Handling: Handling of chips and flakes from waste wood**

Wood can be delivered in a variety of forms, mainly pallets and sawdust. The sawdust material is fed via a moving floor systems and screened for oversized pieces. The accepted material is then graded via an air grader, then fed directly to the drier feed conveyor, the oversized wood is collected for further processing.

The broken pallet material is also collected and fed via a moving floor system, directly to a sizing mill to break down the material into acceptable size. The accepted material is fed directly to a 300m<sup>3</sup> storage silo ready for mixing with the fresh wood chip and fed to the drier.

### **Area 3 – Flaking Production of flakes from fresh produced chip.**

Fresh chip material is fed from the Area 1 storage silos directly to a roller screen at a rate of approximately 430m<sup>3</sup>/hr. The chip is spread over the roller separators to sort the material into 3 x fractions and distributed as follows:

- Fines (< 3 mm): transported directly to the wet flakes silo before the drier
- Macro chips (< 35 mm): transported to the silo feeding the knife ring flaker
- Oversize (> 35 mm): removed out of the process and re-chipped to then be feed to the silo feeding the knife ring flakers

After this screening stage, the accepted chips are reduced to flakes (almost matchstick consistency) via a series of knife ring flakers. Before entering the cutting stage in the knife ring, the chips are first cleaned from metals over a magnet roller, and the bigger and heavier pieces are removed from the process by wind sifting. These actions are done to protect the knife rings and to prevent damage in the process. The chain conveyor before the ring flakers feeds each ring flaker the optimum amount of chips at all times to ensure the correct flow rate of chip, due to the sharpness of the ring flaker knives.

The processed chip via the ring flakers is then fed directly to the 300m<sup>3</sup> wet flake storage silo ready for mixing with the urban waste material and feeding to the drier via a constant material flow dosing bin.

### **Area 4 – Drying: Wood Drying process**

All flakes have to be dry before further processing. This is done via the main drier. The necessary energy for the drying process is supplied in the form of hot air, coming from hot air directly from a dust and/or gas burner. The wet material (flakes from fresh wood and the sawdust/urban waste) is fed at the inlet of the drier via the constant material dosing bin in Area 3.

The chip is introduced into the flash-pre-drier. In this pre-drier, a hot air flow is taking the wet chip material through the pre dryer chamber, the then homogeneous mixture of the hot gases with the wet chips due to counter flow at the infeed point is fed through to the drum drier. Separation of raw and strange material entering the process due to the separation effect at the wet chip in feed is conducted here, and this material is discharged at the bottom of this chamber.

All material is then directed through the single pass drier drum. After a given retention time in the drum of the drier, the material is brought out at the drum outlet of the drier via the chip discharge elbow under the cyclone group. The air with small particles and dust is cleaned through a series of cyclones. The dry chip particles then join the main flow coming out of the discharge elbow to a fire protection vertical screw, and then to the dry flakes silo.

The air after the cyclones, is partly going to a WESP (Wet Electrostatic Precipitator) for further cleaning before being exhausted in the open air. The other part of the air after the cyclones, is reused in the drying process, and reintroduced into the drier airstream.

### **Area 5 – Sorting: Sorting and Cleaning of dried chip.**

After the drier, the material is stored in the 300m<sup>3</sup> dry flakes silo. This silo is used as a buffer in the production, so that in case the production further upstream has stopped, the drier can still be emptied into this silo.

Dry material from this silo is fed via a series of dosing screws to a series of screening machines.

These screening machines separate the dry flakes into 4 fractions, according to their size:

- Dust (< 0.3 mm): pneumatically transported to the dust silo as fuel for the burner in the drier.
- Surface layer (< 1.2 mm): particles used for the both surface layers (Top and bottom) of the board
- Core layer (< 12 mm): particles used for the core layer of the board
- Oversizes (> 12 mm): particles that need to be re-milled before they can be used either in the surface layer or in the core layer.

After the screening machines, the 3 fractions that can be used for further processing are cleaned over a wind sifter. Each wind sifter is splitting up the stream in three fractions:

- Coarse material (oversize): sent to be sorted, then sent to the oversized flakes silo
- Silicates: sorted out of the process
- Accepted Material: Appropriate fraction for further processing going to the core layer surface layer silos.

All oversized flakes from the wind sifters and the screens are sent via a wind sifter to a 100m<sup>3</sup> silo for storage before being reduced in size in a grinding (Conidur) mill. This mill is also called a surface layer mill, because the output of the machine is mainly used for surface layer material.

To make sure that all particles end up in the right fraction, the material after the surface layer mills is screened again. Since the flaking process is not always producing enough material for the surface layers of the board, there is also a possibility to send core layer flakes to the flow of oversized flakes, thus reducing them to surface layer flakes. This is done by the core layer by-pass screw. All material in the sorting section Area 5 is stored in the dust silo as fuel for the dust burner, surface layer silo for SL material or the core layer silo for CL material.



## Addition of Resin and Chemicals

In this stage, the proper fractions for the board are mixed with resin and other chemicals. The additives are prepared in the glue kitchen. Additives like hardener, buffer and formaldehyde scavenger are prepared as liquid solutions. The other purpose of the glue kitchen, is to make sure that all components are exactly dosed to the flow rate of chip, these additives are sent to be mixed with the core layer and surface layer process streams.

The material from the surface layer and core layer silos respectively are first passed via belt scales, measuring the weight of the process material in each stream. According to this weight, the different chemical pumps send the required amount of mixed resins to the glue blenders. At the inlet chute of the core layer and surface layer blenders the emulsion is added. This mixture is then formed to a ring and given an acceleration in the infeed part of the blender. Tangentially on that ring, the resin and other chemicals are added. The ring is moved forward and intensively mixed by means of paddles. At the outlet of each blender, a pneumatic activated flap is making sure that the retention time and mixing of the materials is enough, but not too high to avoid too much breaking of the flakes into too fine material.

After the blenders, the material is conveyed to the forming station.

## Area 7 – Forming and Pressing: Forming, Pre-Pressing and thickness Pressing of chip

The forming station consists of four forming machines: two for the surface layer (bottom surface layer and top surface layer of the board), and two core layer mat formers. The surface layers are spread on the forming line belt by wind formers: wind spreads the material in the way that the finest particles end up at the outside of the board, while the bigger particles are positioned more close to the core layer.

The core layer formers spread the flakes mechanically, making sure that the material is homogenously divided over the mat. After the complete core layer is spread, a pressure roller on the mat is making sure that all flakes are lying horizontally, so no flakes are standing up and sticking out of the formed mat. The final top surface layer is then added to the formed mat.

The mat forming process regulates the weight of the mat, according to the desired board density. This regulation is done by weighing scales inside the mat forming bins, as well as weighing the continuous mat on the forming line, and measuring the total weight of the continuous mat. The forming line then transports the mat via a pre-press to the continuous hot press. During this mat transport, two moisture meters are installed to measure the moisture content of the surface and the core layer. These parameters are very important for the production quantity and quality.

After the weighing scales measuring the total weight of the mat, there is a magnet to remove metal parts, then the mat is compacted by the pre-press, this process vents most of the air out of the mat. The pre-press also ensures that a stable mat is formed prior to entering into the press, ensuring that the mat does not fall apart during transitions of different belts on the forming line.

There is also a mat spraying device on the forming line, in order to increase the moisture at both outsides of the mat. In this way, heat transfer in the press is accelerated, resulting in higher production quantity. There is also a mat density meter on the forming line, to measure the distribution of the weight in the mat. At last, there is a metal detector, which controls if there are still ferrous or nonferrous metals in the mat.

At the end of the forming line, there is a retractable nose. This retractable nose can change the process flow of the formed mat, enabling the mat to be fed directly to the hot press, or in a retracted position, dumping the mat into the reject mat chute. There are several reasons why the mat cannot enter the press and must therefore be dumped this could be attributed to the following:

- Metal is detected in the mat

- If the weight is outside tolerance
- If the pre-press was not working at the correct pressure
- If the humidity in the mat is too low or too high
- If there is a blockage in or after the press

From the reject mat chute, the flakes are transported pneumatically to the reject mat flakes silo, from where they are reintroduced into the process either before the formers or into the dry chip silo. In case metal was detected in the mat, the reject mat does not enter the silo, but is directed to a dump next to the silo.

After the mat is formed into an acceptable condition, it can enter the ContiRoll (Hot Press). Inside this hot continuous press, heat and pressure are transforming the mat to a particle board. The heat is provided by thermal oil, which is fed to five different heating zones in the press. The temperature for each zone can be set independently from each other. The pressure is generated by a hydraulic aggregate, generating 300 bar of pressure. The hydraulic oil is activating hydraulic cylinders that transfer the pressure to the mat. All parameters for this process can be entered from one central operating point. The product leaving the ContiRoll (Hot Press) is called the raw board, this continuous raw formed board is later trimmed, cooled and stacked for further processing.

### **Area 8 – Trimming and Stacking**

The raw board leaving the press is continuously fed to the saw unit. First, the board is trimmed (cutting of the left and right edges), after that, the endless board is cut in separate raw boards. At this stage, some quality tests are performed on-line on the raw boards: the thickness is measured, the board is controlled on blisters (lack of resin adhesion inside the board) and the weight (density) is checked. If one of these parameters are not suitable for acceptable board, the board is rejected at the reject station.

In the reject station, the board is crushed into small pieces and transported to a dump or container. From there, the rejected boards can be fed into the process again over the urban wood waste infeed at Area 2. If the board passes all the tests, it continues to a board cooler. After cooling down, the boards are piled up in stacks to be stored in an intermediate storage.

### **Area 9 – Sanding Finishing: Final sanding and processing of finished product.**

From the raw board storage, boards can for instance be sent to the existing (MDF-)sanding line. After this process, the boards are ready to be sold, or for further processing as required by the manufacturer.

#### **6.1.2 Paper Treatment**

This is the manufacture of resin treated paper which is later laminated via pressing onto the surface of MDF and Particle board. The resinated sheet imparts hardness, texture, colour and water resistance to the substrate, allowing it to be used in the joinery applications.

Paper treatment utilises a paper treating machine which takes raw paper and applies Melamine (MF) and Urea (UF) formaldehyde copolymer resin into the core and onto the surface of the product. Resin supplied in bulk is later mixed with various additives which improve the treated papers performance using an automatic glue mixing station. The paper treater utilises several independent processes combining them in to a continuous production line to complete the product manufacture, these are:

- UF Resin saturation into the core of the raw paper (web).
- Pre drying of the saturated web product in a flotation dryer.
- Gravure Coating of the pre dried web with a more durable MF resin

- Final flotation drying of the web.
- Processing of the continuous web in to sheets and rolls.

The MDF site at Oberon will receive 2 paper treatment lines and an additional laminating press. Figure 6 illustrates this process.

# Impregnated paper manufacturing process

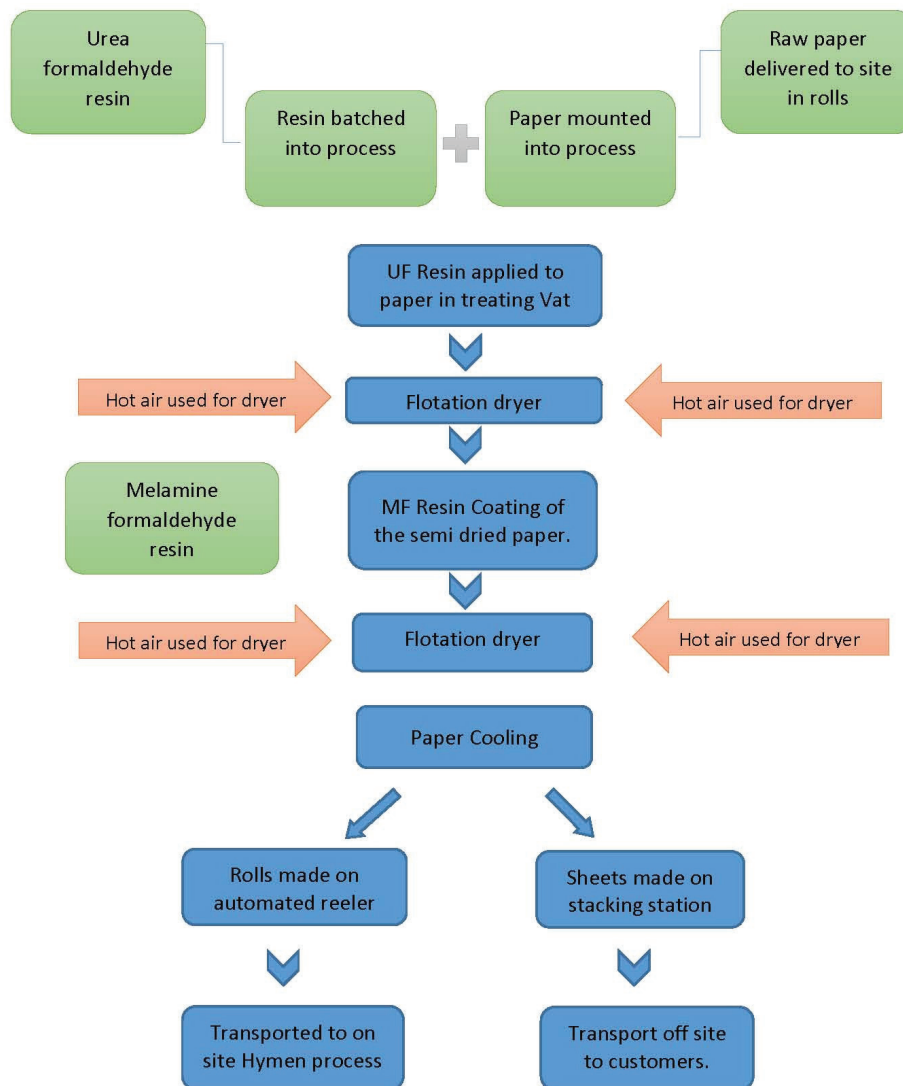


Figure 6: Impregnated Paper Manufacturing Process

The paper is stored in an automated stacking system which controls the stock and the location of all rolls in the paper treatment process.

### 6.1.3 Laminating Press.

The continuous laminating press utilises the paper manufactured at the paper treater and MDF boards made in the Controll presses to manufacture low pressure melamine laminated board products. The laminating press utilises Isobaric pressure and thermal oil heat to consolidate the paper on to the surface of the finished board.

The paper is applied to the surface and underside of the substrate boards in the continuous press process, the substrate and paper are then fed between the platens of the press. These apply the heat and pressure to the package in order to activate the glue in the paper and cause the adhesion of the paper to the surface of the board. The pressed board is then fed into the sawing and automated inspection line which prepares the laminated boards ready final inspection and packing. Once packed the boards are sent with the appropriate labelling to the warehouse to await delivery to the end user.

These works are an expansion and continuation of the existing manufacturing facilities on site, and will follow the same process as the existing approved facilities, but with updated machinery that will create lower noise levels and operate more efficiently.

These works will run in parallel with the existing MDF processing lines, MDF mouldings operation, laminating building (including press and paper treatment) and ancillary cranes, and storage which are to be retained.

Details of this process are included in Figure 7 below.

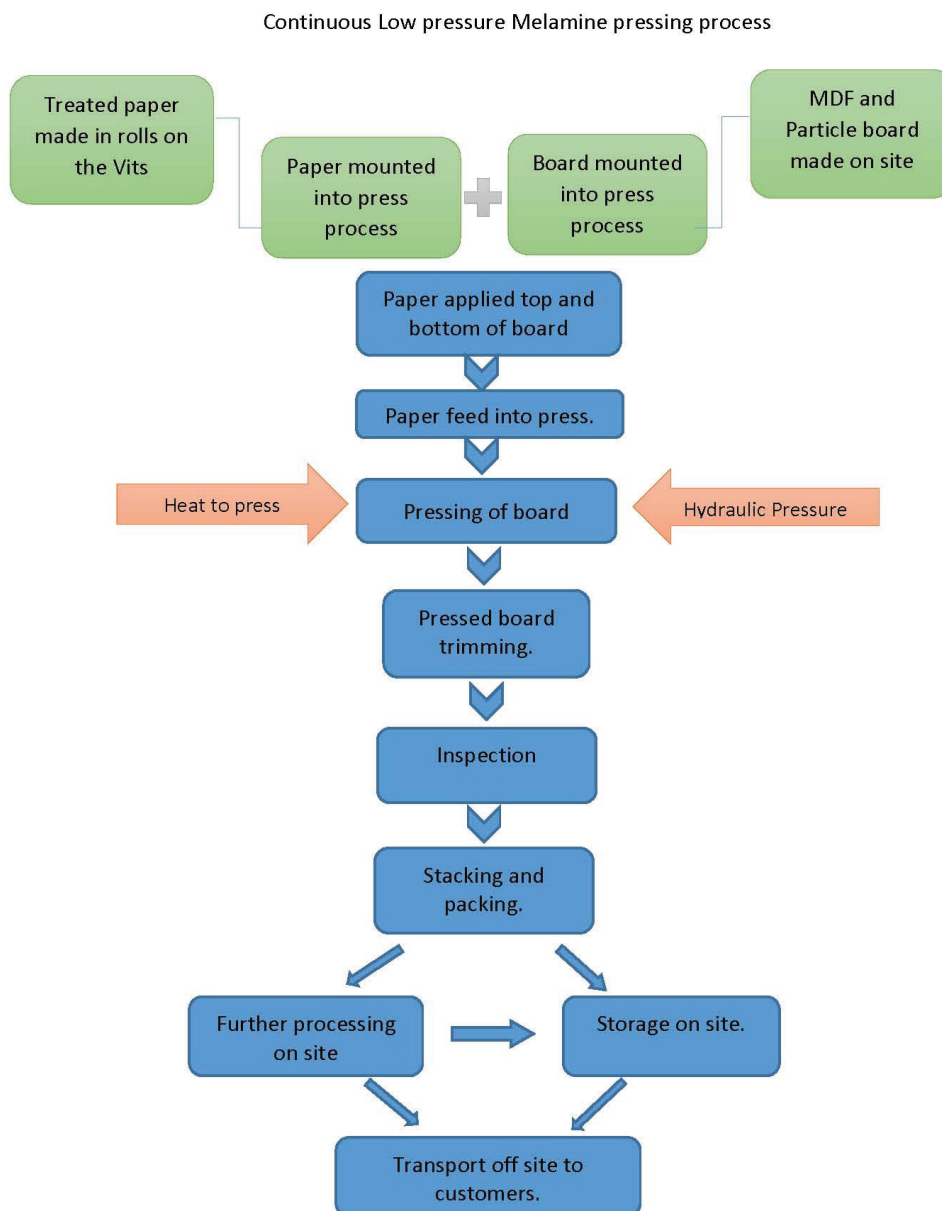


Figure 7: Press Process Flowchart

#### **6.1.4 Automated Storage Warehouse.**

The automated storage warehouse building will encompass a completely automated storage and packing process. It will consist of approximately 10,000 material bays, ranging in length, width and thickness. The store will be made up of 6 aisles with automated handling trolleys (stacker cranes) and significant amounts of suitable shelving and or racking which will store and retrieve the contents of the trolleys. The packs will be prepared at all times of the day and the process will be able to operate unmanned during the night once the orders are entered into the Warehouse management system. The prepared packs will then be presented ready for loading to the transport fleet and delivery to customers.

#### **6.1.5 Sanding Line**

An additional wide belt sanding line is to be installed within the existing Main Production Hall Building to accommodate extra product generated on site. The sanding line is used to prepare the surface of the board prior to additional processing.

#### **6.1.6 Lot Consolidation and Boundary Adjustment**

Consolidation of effected lots is the subject of this application as follows:

- Consolidate Lots 1 & 2 D.P.1085563 into Lot 26 D.P.1200697
- Consolidate Lot 24 D.P. 1148073 into Lot 26 D.P.1200697

A Boundary adjustment is the subject of this application as follows:

- Adjust the adjoining eastern boundary of lot LOT 26 D.P.1200697 and western boundary of Lot 1 DP 1076346. This boundary is to be relocated to the east, increasing the size of LOT 26 D.P.1200697 and reducing the size of Lot 1 DP 1076346.

Details of this consolidation and boundary adjustment are included in Figure 8 below.

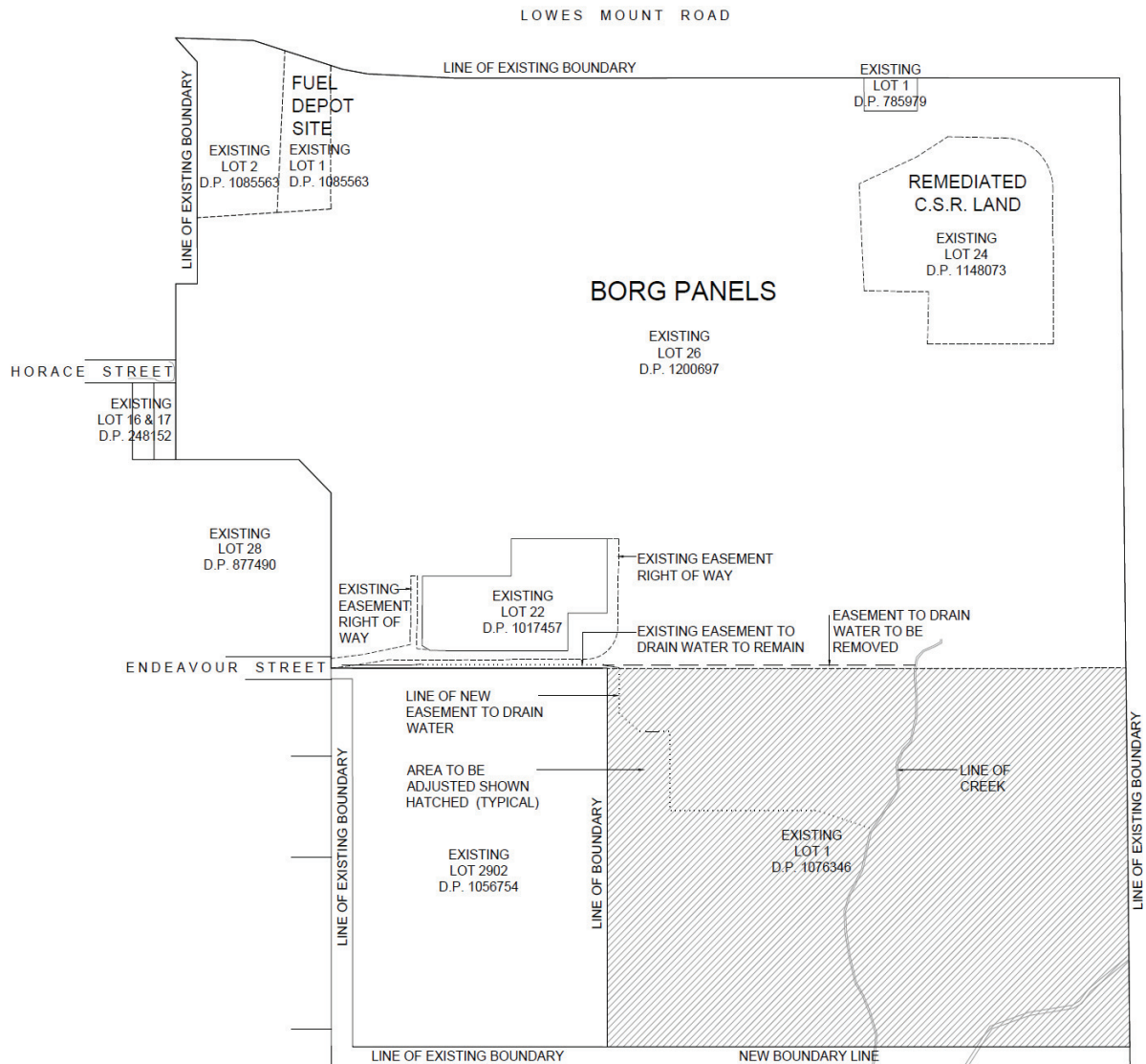


Figure 8- Consolidation Plan

This will rectify the current IN1/RU1 split zoning on Lot 1 DP 1076346, by consolidating the IN1 zoned proportion of land on Lot 1 DP 1076346 into Lot 26 LOT 26 D.P.1200697, thus retaining all the RU1 zoned land under the current LOT 26 D.P.1200697

## 6.2. Site Preparation

The site is largely cleared, level and comprises existing industrial buildings. As such, very little ground work, with the exception of the car park on the northern section of the site and the detention basins to the east of the site, will be undertaken. All works involving excavation will be undertaken in accordance with an erosion and sediment control plan, prepared in accordance with the Blue Book.

Some demolition will be required over the site. The existing administration building in the centre of the site will be demolished to make way for new plant. In addition, existing industrial facilities, including a refuelling depot, will be demolished in the south western corner of the site. Site remediation works, in accordance with the EPA's *Guidelines for Assessing Service Station Sites*, will need to be undertaken to ensure that this section of the site is appropriately dealt with, and this should be conditioned as such.



### 6.3. Construction

The target start date for the construction of the first stage of works is nominated for Q4 2016, subject to approval. The work will be executed by a number of specialist and experienced contractors, managed as a project by a dedicated Borg Construction management team led by a site based Construction Manager.

As part of the construction process, a detailed Project Execution Plan, including a Construction Management Plan, Safety Management Plan, Quality Assurance Plan and an Environmental Management Plan would be produced. These will guide the overall process, and will be informed by both this document, and any relevant conditions imposed on the Project

#### 6.3.1. Program of Works

The Project is to be undertaken in four stages. This will be over a period of 24 months:

- Stage 1 – site works, construction of detention basin (required for erosion and sediment control for later stages) and hardstand areas. Within this stage the construction of the detention basin and drainage swale will be undertaken first in order to ensure that the appropriate erosion and sediment control measures can be implemented for later stages. Stage 1 is to commence upon approval and is estimated to take approximately 6 months.
- Stage 2 – construction of Particle Board Manufacturing Facility and installation of related plant. Stage 2 is to commence upon approval or slightly thereafter and is estimated to take up to 24 months, dependent on equipment availability.
- Stage 3 – alterations and additions to existing MDF site and construction of new automated storage warehouse. Stage 3 is to commence upon approval or slightly thereafter and is estimated that this will take up to 24 months.
- Stage 4 – debarker chipper building and chip preparation area. Stage 4 is to commence approximately 12 months after approval and is estimated to take up to 12 months to complete.

These stages are not dependent on each other, and can be carried out independently and concurrently. As such, the staging plan is not indicative of the order in which stages 2, 3 and 4 will be carried out.

Details of the works involved in each staging plan are included in Appendix B along with architectural and landscape plans.

#### 6.3.2. Outline of Main Construction Activities

The construction of the Project is to be undertaken in a number of stages as outlined above. These stages are generally not dependant on each other, and may be undertaken in a different order to the numerical order outlined above. However, the key construction activities are considered to be:

- Construction of new first flush and emergency basin in east of the site.
- Demolition of existing site infrastructure
- Construction of new site access and hardstand
- Construction of new industrial buildings to the south west and north west of the subject site to house new plant and equipment, as well as to provide storage.
- Installation of new plant and equipment in existing industrial buildings

These new buildings are generally as follows:

- Proposed debarker and chipping plants will be constructed to the south and east of the existing production building. The chippers will be contained in concrete and acoustic panels enclosures.
- A mill building with dimensions 19 x 10 metres will be constructed to the west of the proposed production hall. The building is to be fully enclosed with acoustic panelling.

- A flaker building with dimensions 61 x 33 metres will be constructed to the west of the proposed production hall. The building is to be fully enclosed with acoustic panelling.

### **6.3.3. Fencing, Security and Lighting**

During the construction phase of the Project, the existing site security measures will be retained. This provides for secure site access, with all visitors to the site having to undertake an induction. As the site will continue to be operational during the construction phase these worker safeguards are important to be maintained. Deliveries will continue to be split between Gate 6 and Gate 4, which are security controlled.

No changes to the existing site security fencing is proposed to be undertaken as part of the Project.

The separation between the Woodchem operations and the rest of the site will be reinforced through additional fencing to clearly delineate the different operations and ensure that access can be achieved over the Project site without any intrusion in to areas of construction or storage.

Lighting is currently provided on site to allow the full 24-hour operation of the site in line with the current consent. This is designed to project downwards to minimise impacts on the amenity of the area and to increase overall site safety.

### **6.3.4. Construction Workforce**

Where possible, construction workers will be employed from the local community. Some off-site construction of plant and infrastructure will be required. This will generally be undertaken at the Somersby facility of Borg Panels.

### **6.3.5. Construction Hours**

It is proposed that construction activities would occur during:

- Monday to Friday 7am to – 7 pm;
- Saturday 7am – 3pm; and
- No works on Sundays and Public Holidays.

### **6.3.6. Construction Environmental Management and Monitoring**

Prior to construction activities taking place, a Construction Environmental Management Plan (CEMP) would be prepared to address the management of potential environmental impacts associated with construction activities. The CEMP would include as a minimum management measures to address the following environmental aspects during the construction phase:

- Surface Water;
- Soils and groundwater;
- Air quality and odour;
- Noise;
- Waste;
- Indigenous and Non-Indigenous Heritage; and
- Flora and fauna.

## 6.4. Operation

The operation of the Facility can generally be divided into the following key areas:

- Import – raw material (timber) delivered to the site;
- Production – production of MDF and particle board products as detailed above;
- Storage – in the facility; and
- Dispatch – Out loading of product for delivery to customers by truck.

### 6.4.1. Import

Delivery of timber would generally be undertaken by the existing Borg trucking fleet, or by nominated contractor. Much of the timber brought to site is produced in the surrounding area, and comes in a raw (unprocessed) form, directly from the plantation. No old growth or native forest is used in the production of either MDF or Particle Board.

The completed Project would require approximately 320 truck movements per day to meet expected demand. Log trucks would continue to enter the site at Gate 5 and proceed to the log storage area in the south eastern corner of the site. The logs would be unloaded and then processed on site.

### 6.4.2. Production

Production of both MDF and Particle Board is detailed in Section 6.1 above.

### 6.4.3. Storage

The automated storage warehouse building will encompass a completely automated storage and packing process. It will consist of approximately 10,000 material bays, ranging in length, width and thickness. The store will be made up of 6 aisles with automated handling trolleys (stacker cranes) and significant amounts of suitable shelving and or racking which will store and retrieve the contents of the trolleys. The packs will be prepared at all times of the day and the process will be able to operate unmanned during the night once the orders are entered into the Warehouse management system. The prepared packs will then be presented ready for loading to the transport fleet and delivery to customers.

### 6.4.4. Dispatch

The automated storage warehouse building will encompass a completely automated storage and packing process. It will consist of approximately 10,000 material bays, ranging in length, width and thickness. The store will be made up of 6 aisles with automated handling trolleys (stacker cranes) and significant amounts of suitable shelving and or racking which will store and retrieve the contents of the trolleys. The packs will be prepared at all times of the day and the process will be able to operate unmanned during the night once the orders are entered into the Warehouse management system. The prepared packs will then be presented ready for loading to the transport fleet and delivery to customers.

Approximately 320 truck movements will occur. This is an increase in 218 over current daily truck movement.

### 6.4.5. Fire Management

The existing Borg Panels facility has been designed to minimise safety risks and hazards associated with operations, and is fitted with extensive fixed and portable fire-fighting capability. A detailed Fire Management Plan will be prepared prior to construction.

Existing and new process controls will include a monitored fire system with deluge. There is also a manual deluge system proposed for most significant equipment groups.

#### **6.4.6. Stormwater Management**

The majority of the Site is sealed and there is an existing stormwater management system in place. This system collects stormwater from the wider Oberon Timber Complex and treats the water on site through a series of treatment ponds. The clean water is then discharged from the site.

In order to prevent pollution of existing watercourses from the site, the existing system will be upgraded, with additional detention basins provided. This is detailed in Section 15.

#### **6.4.7. Security**

All visitors to the Site must check in with operations staff, undergo the appropriate level of induction and be wearing appropriate Personal Protective Equipment (PPE) relevant to their visit, prior to entering the Site.

A chain wire mesh fence with a barbed wire top exists around the entire boundary. Truck access to the Site would continue to be managed via three automatic traffic gates that would be opened by terminal staff or access cards (issued to inducted contractors).

Emergency egress points are located at manually-opened gates and the main traffic gates.

#### **6.4.8. Hours of Operation**

No change to the existing approved hours of operation under the 1995 consent are proposed. These are 24 hours a day, 365 days a year.

## PART E – PLANNING MATTERS

### 7.0 STATUTORY PLANNING

#### 7.1. Commonwealth Matters

##### 7.1.1. *Environment Protection and Biodiversity Conservation Act 1999*

The primary objective of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) is to 'provide for the protection of the environment, especially those aspects of the environment that are Matters of National Environmental Significance'. Environmental approvals under the EPBC Act may be required for an 'action' that is likely to have a significant impact on Matters of National Environmental Significance.

Where there is potential for a proposal to have a significant impact on any Matters of National Environmental Significance, a Referral under the EPBC Act can be submitted to the Department of the Environment for consideration, concurrent with this State Significant Development application process.

The limited biodiversity value on the site ensures that the Project does not trigger any Matters of National Environmental Significance and no Referral is required.

#### 7.2. State Matters

##### 7.2.1. *Environmental Planning and Assessment Act 1979 (EP&A Act)*

The Environmental Planning and Assessment Act 1979 (EP&A Act) and the Environmental Planning and Assessment Regulation 2000 (EP&A Regs) provide the framework for development and environmental assessment in NSW. Given the size of the Project, it would have been one to which Part 3A of the EP&A Act applied had it continue to operate. However, on 16 June 2011, the NSW Government introduced the EP&A Act Amendment Bill into the Parliament to repeal Part 3A of the EP&A Act and replace it with an alternative system for the assessment of projects of genuine State significance. This new legislation came into force on the 1 October 2011.

In line with the amended EP&A Act, a project is classified as State Significant Development, (SSD) pursuant to Part 4 Section 89C of the EP&A Act if it is declared as SSD by a State Environmental Planning Policy or declared SSD by order of the Minister for Planning in the Government Gazette.

In this instance the proposed development falls under the provisions set out in Clause 4 of Schedule 1 of the State Environmental Planning Policy (State and Regional Development) (2011) (SEPPSRD).

Clause 4 of Schedule 1 relates to Timber milling, timber processing, paper and pulp processing facilities that have a capital investment value of more than \$30 million as follows:

*Development that has a capital investment value of more than \$30 million for any of the following purposes:*

- (a) milling plants, sawmills, log processing works, wood-chipping or particle board manufacture,*
- (b) manufacture of paper, pulp, cardboard or newsprint,*
- (c) paper recycling,*
- (d) wood preservation,*
- (e) charcoal plants,*

*but not including development for the purpose of plantations (unless it is ancillary to other development specified in this clause).*

As the proposal is for a particle board manufacturing facility and associated site works with an estimated capital investment value of \$106 million, it meets the requirements of Schedule 1 Clause 4 of the SEPPSRD. Therefore, the project is considered State Significant Development.

Section 78(A) (8A) of the EP&A Act states that a

*development application for State significant development is to be accompanied by an environmental impact statement prepared by or on behalf of the applicant in the form prescribed by the regulations.*

Section 79C of the EP&A sets out the matters for consideration. These are shown in Table 1 below

a) (i) Any environmental planning instrument	Section 7
(ii) Any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority	No proposed instrument is applicable to this application.
(iii) Any Development Control Plan	Development Controls Plans do not apply to State Significant Development. However, consideration of the Oberon Council Industrial DCP is included to show compliance.
(iiia) Any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F	No Planning Agreement has been entered into under Section 93F
(iv) The Regulations (to the extent that they describe the matters for the purposes of this paragraph)	Section 7
(v) Any Coastal Zone Management Plan (within the meaning of the Coastal Protection Act 1979) that apply	No Coastal Management Plans apply
(b) The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality.	Part G
(c) The suitability of the site for the development	Section 27
(d) Any submissions made in accordance with this Act or the regulations	Any submissions made in accordance with the Act or the regulations will be addressed during the EIS exhibition.
(e) The public interest	The Project is in the public interest as it minimises the current impacts from the development (in regards to both air and noise pollution) whilst increasing regional employment.

Table 1: Section 79C Matters for Consideration:

Schedule 2 of the EP&A Regs sets out the requirements of an Environmental Impact Statement (EIS). This is addressed in Section 7.2.2 below.

Part 2 of Schedule 2 of the EP&A Regs states:

*Before preparing an environmental impact statement, the responsible person must make a written application to the Director-General for the environmental assessment requirements with respect to the proposed statement.*

Secretary's Environmental Assessment Requirements (SEARs) (formerly Director Generals Requirements) for have been issued for the Project in April 2015 and form the basis of this EIS.

Sections 89J and 89K of the EP&A Act outline authorisations that are not required for State significant development authorised by a development consent, and authorisations that cannot be refused if necessary for carrying out State significant development that is authorised by a development consent.

The requirements of other Acts and Environmental Planning Instruments that are applicable to the Project are discussed in more detail below.

### **7.2.2. Environmental Planning and Assessment Regulation 2000**

#### **Form and Content of an EIS**

This EIS has been prepared pursuant to Schedule 2 of the EP&A Regulations. Clauses 6 and 7 of Schedule 2 provide requirements in relation to the form and content of an EIS. The requirements of Clauses 6 and 7 and where they are addressed in this document are outlined in Table 2 and Table 3

#### **Form of Environmental Impact Statement**

An environmental impact statement must contain the following information:	Addressed:
a) The name, address and professional qualifications of the person by whom the statement is prepared	Certification Page
b) The name and address of the responsible person	Certification Page
c) The address of address of the land: (i) In respect of which the development application is to be made, or (ii) On which the activity or infrastructure to which the statement relates is to be carried out.	Lot and DPs are provided on Title Page, Section 1 and Section 3.2
d) A description of the development, activity or infrastructure to which the statement related	Section 6
e) An assessment by the person by whom the statement is prepared of the environmental impact of the development, activity or infrastructure to which the statement related, dealing with the matters referred to in this Schedule	This Table and Part F
f) A declaration by the person by whom the statement is prepared to the effect that: (i) The statement has been prepared in accordance with this Schedule, (ii) The statement contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure to which the statement relates, and (iii) That the information contained in the statement is neither false nor misleading	Certification Page

Table 2: Form of an EIS



### Content of an Environmental Impact Statement

An environmental impact statement must contain the following information:	Addressed:
(1) An Environmental Impact Statement must contain the following:	Executive Summary
a) A summary of the environmental impact statement,	
(b) A statement of the objectives of the development, activity or infrastructure,	Section 4
(c) An analysis of any feasible alternatives to the carrying out of the development, activity or infrastructure, having regard to its objectives, including the consequences of not carrying out the development, activity or infrastructure,	Section 5
(d) An analysis of the development, activity or infrastructure, including: <ul style="list-style-type: none"> <li>(i) A full description of the development, activity or infrastructure, and</li> <li>(ii) A general description of the environment likely to be affected by the development, activity or infrastructure, together with a detailed description of those aspects of the environment that are likely to be significantly affected, and</li> <li>(iii) The likely impact on the environment of the development, activity or infrastructure, and</li> <li>(iv) A full description of the measures proposed to mitigate any adverse effects of the development, activity or infrastructure on the environment, and</li> <li>(v) A list of any approvals that must be obtained under any other Act or law before the development, activity or infrastructure may lawfully be carried out,</li> </ul>	Section 6
(e) A compilation (in a single section of the environmental impact statement) of the measures referred to in item (d) (iv),	Section 27
(f) The reasons justifying the carrying out of the development, activity or infrastructure in the manner proposed, having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development set out in subclause (4).	Certification Page
(2) Subclause (1) is subject to the environmental assessment requirements that relate to the environmental impact statement.	Noted
(3) Subclause (1) does not apply if: <ul style="list-style-type: none"> <li>(a) The Director-General has waived (under clause 3 (9)) the need for an application for environmental assessment requirements in relation to an environmental impact statement in respect of State significant development, and</li> <li>(b) The conditions of that waiver specify that the environmental impact statement must instead comply with requirements set out or referred to in those conditions.</li> </ul>	N/A  This EIS has been prepared in accordance with Project specific SEARs issued by the Department.
(4) The principles of ecologically sustainable development are as follows: <ul style="list-style-type: none"> <li>(a) The precautionary principle, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the</li> </ul>	Section 28



<p>precautionary principle, public and private decisions should be guided by:</p> <ul style="list-style-type: none"> <li>(i) Careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and</li> <li>(ii) An assessment of the risk-weighted consequences of various options,</li> <li>(b) Inter-generational equity, namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,</li> <li>(c) Conservation of biological diversity and ecological integrity, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,</li> <li>(d) Improved valuation, pricing and incentive mechanisms, namely, that environmental factors should be included in the valuation of assets and services, such as: <ul style="list-style-type: none"> <li>(i) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,</li> <li>(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,</li> <li>(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.</li> </ul> </li> </ul>	
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Table 3: Content of an EIS

### 7.2.3. Relationship with Project Approval 27/95

There is an existing consent that that applies to the subject site: DA 27/95 (as amended). This consent applies to much of the existing Oberon Timber Complex, including the Borg land. However, a number of other DAs have been approved which appear to have removed certain components of the original consent. However, these predate the online publication of consents through the Department of Planning Portal.

As a result, it is proposed to excise the land the subject to this application from DA 27/95, seeking consent for the new works, whilst recognising that existing works have approval under this past application. These existing works that apply to the Project are covered under the following modifications to DA 27/95:

- DA 27/95 – M1,
- MOD-83-10-2002-i,
- MOD-27-2-2005-i,
- MOD 4,
- MOD 5,
- MOD 7
- MOD 8

It is noted that the majority of Lot and DPs that the original consent relates to, and which are still noted on the consent, are no longer in existence, as lot consolidations and subsequent subdivisions have changed the official land descriptions. As such, it is considered that this new approval, and the new conditions of

consent that will be imposed, will take precedence over the existing consent. However, recognition that there is existing, approved development on the site, and that significant elements of this will not be altered, is required from the Department.

The existing consent will still continue to operate to ensure that any land on the western side of Lowes Mount Road, not covered under subsequent consents, will continue to have appropriate controls put in place.

It is considered that the following Lots are still subject to the original 27/95 consent:

- Lot 10 DP846575
- Lot 1 DP 868536
- Lot 1 DP DP155561
- Lot 8 DP 204131
- Lot 88 DP 592323
- Lot 10 DP 1017456
- Lot 86 DP 574012
- Lot 1 DP 1047220
- Lot 11 DP 1017456
- Lot E DP 411788
- Lot B DP 160792
- Lot 1 DP 128404
- Lot 1 DP 360362
- Lot 1 DP 360361
- Lot 1 DP 1047220

This list does not take into account any subsequent approvals that may have removed land parcels on the western side of Lowes Mount Road. As the original consent has not modified these lot numbers it is not clear as to whether land on the western side of Lowes Mount Road is still covered by the consent.

It is requested that the approvals put in place for noise and air quality use the EPA licence requirements as a guideline. The 27/95 approval currently specifies both levels from the Department as well as referencing the EPA licensing requirements. As these are two separate levels, it is requested for consistency that only the EPA licence requirements be brought across to form the new consent.

In regards to the existing conditions of consent that apply to the site under the 27/95 consent, the following conditions are considered to be relevant, and may be appropriate to be carried across to the new consent:

- 1A
- 8(a)
- 9
- 10
- 11
- 17
- 18
- 21
- 24
- 25
- 30
- 35(a)
- 46
- 48
- 50

- 51
- 53
- 54

In regards to the existing condition of consent that applies to the site under the 27/95 consent, the following condition is considered to be relevant for the short term however will expire and drop off at completion of the time frame conditioned:

- 37a

It is noted that the land on which the Woodchem facility is located on (Lot 22 DP 1017457) is not currently part of the 27/95 Consent. This separate consent is to be continued under the current application. There are a number of reasons for this approach:

- The ownership of the site is different to that of the wider Borg Panels facility. There is the potential for the site to be sold, and a similar situation to the current consent to occur (different ownership having to work under the same consent)
- The current consent rests with Oberon Council
- The site is acknowledged as Major Hazardous Facility (MHF) due to storing formaldehyde. This is covered under an existing WorkCover licence.
- No changes are proposed to the Woodchem facility – current capacity meets the expected demand.
- The Woodchem facility sells resins to a number of different companies outside of the Borg group of companies, and operates as a separate business, despite sharing some high level corporate support services.
- An easement for access exists to provide ongoing access to the site from Endeavour Street.

As a result of the above, it is considered that the Woodchem site is best dealt with as a separate application. Due to the size of operations of the Woodchem facility, the consent for such operations will rest with Oberon Council.

#### **7.2.4. State Environmental Planning Policies**

##### **State Environmental Planning Policy (State and Regional Development) 2011**

The Project is 'State Significant Development' in accordance with Division 4.1 of Part 4 of the EP&A Act, as it is triggered as a 'Waste and Resource Management Facility' under Clause 4, Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011. Specifically, the following provision triggers the proposal as State Significant Development:

*Development that has a capital investment value of more than \$30 million for any of the following purposes:*

*(a) milling plants, sawmills, log processing works, wood-chipping or particle board manufacture,*

The proposal is expected to have a CIV of \$105 million, thereby exceeding the SSD trigger of \$30 million. Accordingly, the appropriate approval process is State Significant Development under Part 4 of the EP&A Act.

##### **State Environmental Planning Policy 33 – Offensive and Hazardous Development**

State Environmental Planning Policy 33 –Hazardous and Offensive Development (SEPP 33), clause 12 outlines that a Preliminary Hazard Analysis screening test must be undertaken to determine the risk of the proposal.

A potentially hazardous industry is defined within SEPP 33 as a development for the purpose of any industry which, if the development were to operate without employing any measures to reduce or minimise its impact, would pose a significant risk to human health, life or property, or to the biophysical environment.

An assessment of the Project in accordance with Hazardous and Offensive Development –Applying SEPP 33, is provided in Section 12 and concludes that the Project is not offensive or hazardous.

### **7.2.5. Central West and Orana Regional Growth Plan**

The Central West and Orana Regional Growth Plan has not yet been formally prepared by the Department. The Department website states:

*In June 2014 the NSW Government released new draft regional boundaries for NSW. Once the boundaries are finalised for each region, they will provide the basis for a new generation of strategic plans called Regional Growth Plans.*

*There are no existing strategies in place for this region. The Department of Planning and Environment will prepare a Regional Growth Plan for Central West and Orana. The first step is to prepare a Discussion Paper to start the conversation on how the Region will grow over the next 20 years. The Regional Growth Plan will identify areas suitable for housing and employment expansion in the region. However, not all parts of the region are projected to experience growth equally and as such the plan will identify strategies to ensure population sustainability and to manage population decline.*

The Project is located within the Central West and Orana regional boundaries. The key statistic on the region webpage for regional growth plans concerns population growth 2011-2031. This projects the population to increase from 276,850 in 2011 to 299,550 in 2031.

With this increase in population, ongoing, long term employment is an integral part of any future policy. The proposed expansion will provide additional employment, and represents a long term investment in the region, leading to long term jobs, both on site and in associated industries such as forestry.

## **7.3. Local Matters**

The following details more localised matters, including Environmental Planning Instruments, Development Control Plans and other Licencing Requirements of the Project.

### **7.3.1. Oberon Local Environmental Plan 2013**

The Project is located within the Oberon Council Local Government Area. As a result, the provisions of the *Oberon Local Environmental Plan 2013* (LEP) need to be considered as part of this EIS.

The subject land has a zoning of IN1 – General Industrial zoning.

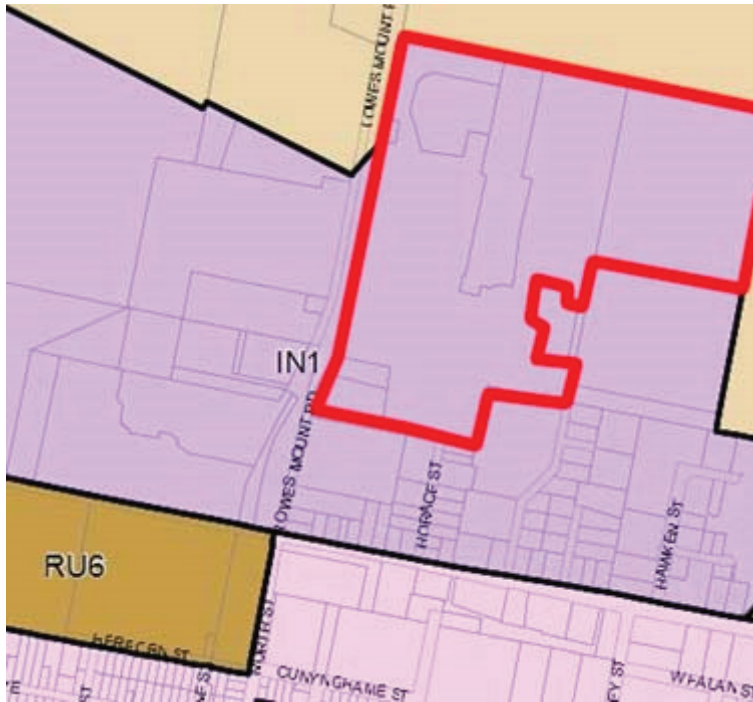


Figure 9: Site Zoning

The objectives of the current zone as follows:

- *To provide a wide range of industrial and warehouse land uses.*
- *To encourage employment opportunities.*
- *To minimise any adverse effect of industry on other land uses.*
- *To support and protect industrial land for industrial uses.*

The proposed development is consistent with the objectives of the zone as set out under the provisions of the LEP. All works are to be internal to the existing buildings on site, and will be enclosed within sound proof enclosures.

The development aims to ensure that all works minimise adverse impacts on other land uses. The proposal will also assist in ensuring the economic viability of the site, ensuring the continuation of employment for the local community and having obvious flow on effects in terms of economic benefits to local settlements (including the Oberon town itself as well as surrounding areas)

The permitted uses in the zone are as follows:

*Depots; Freight transport facilities; Funeral homes; General industries; Hardware and building supplies; Industrial training facilities; Kiosks; Landscaping material supplies; Light industries; Liquid fuel depots; Neighbourhood shops; Plant nurseries; Roads; Rural supplies; Take away food and drink premises; Timber yards; Vehicle sales or hire premises; Warehouse or distribution centres; Any other development not specified in item 2 or 4*

The prohibited uses in the zone (item 4 above) are as follows:

*Agriculture; Air transport facilities; Airstrips; Amusement centres; Camping grounds; Caravan parks; Cemeteries; Commercial premises; Community facilities; Correctional centres; Eco-tourist facilities; Entertainment facilities; Exhibition homes; Exhibition villages; Farm buildings; Forestry; Function centres; Heavy industrial storage establishments; Home-based child care; Home businesses; Home occupations; Marinas; Mooring pens; Moorings; Open cut mining; Registered clubs; Research stations; Residential accommodation; Tourist and visitor accommodation*

Development permitted without consent in the zone (item 2 above) are as follows:

*Environmental protection works; Flood mitigation works; Water reticulation systems; Water treatment facilities; Wharf or boating facilities*

A review of the permitted uses in the zone indicate that the existing development on site meets the definition of *Heavy industry*. This is not anticipated to change as a result of the Project. *Heavy industry* is defined as follows:

*heavy industry means a building or place used to carry out an industrial activity that requires separation from other development because of the nature of the processes involved, or the materials used, stored or produced, and includes:*

*(a) hazardous industry, or*

*(b) offensive industry.*

*It may also involve the use of a hazardous storage establishment or offensive storage establishment.*

Part of Lot 1 DP 1076346 is zoned RU1. It is proposed that this land undergo a boundary adjustment as part of this process. The new boundary of the lot is to be located on the zone boundary. The IN1 zoned portion of the lot is to be consolidated with Lot 26. Lots 1 and 2 and Lot 24 are also to be consolidated in to Lot 26.

Clause 6.6 of the Oberon LEP notes requirements for land located within an industrial buffer zone. The map for this is shown below:



Figure 10: Indicative Location of the Project relative to Noise Buffer

Clause 6.6 states:

*(1) The objectives of this clause are as follows:*



*(a) to protect the operational environment of industries operating within the Oberon Timber Complex,*

*(b) to control development near the Oberon Timber Complex and waste disposal facilities to minimise land use conflict.*

*(2) This clause applies to land identified as “Oberon Timber Complex” on the Industrial Buffer Map.*

*(3) Before granting development consent to development on land to which this clause applies, the consent authority must consider the following:*

*(a) the impact that any noise, odour or other emissions associated with existing land uses may have on the development,*

*(b) any proposed measures incorporated into the development that limit the impact of such noise and other emissions associated with the existing land use,*

*(c) any opportunities to relocate the development outside the land to which this clause applies,*

*(d) whether the development is likely to adversely affect the operational environment of any existing development on the land to which this clause applies.*

In this instance it is noted that the Project is located within the Industrial Buffer area, as illustrates above. However, the Project is part of the Oberon Timber Complex, rather than being development that may be affected by the ongoing operations of the Oberon Timber Complex. As such, it is considered that the Project does not need to consider the impact of noise, odour or other emissions associated with existing land uses, provide measures to minimise the impacts of noise or considered locating the development outside of the buffer area. This is because the Project represents the expansion of an existing industry that the buffer area was established to protect.

However, it is important to note that mitigation measures have been put in place to minimise the impacts of the development on adjoining land uses, such as installation of appropriate noise reducing technology and buildings, proposed coverings of stockpiles and the like.

Further, detailed consideration of the acoustic impacts of the Project, including further consideration of compliance with Cl. 6.6 of the Oberon LEP are included in Section 13 of this report.

### **7.3.2. Oberon Development Control Plan**

Clause 11 of SEPP SSD states:

*Development control plans (whether made before or after the commencement of this Policy) do not apply to:*

*(a) State significant development, or*

*(b) development for which a relevant council is the consent authority under section 89D (2) of the Act.*

As a result, no DCPs are relevant to the Project.

However, in order to address potential concerns, and to address the requirement in the SEARs, the following table sets out the key criteria within Oberon Council DCP Part D – Commercial and Industrial development, and demonstrates compliance with these controls.



DCP Component	Requirement	Complies?	Comments
D2 – Aims and Objectives	<p><i>The aim of this plan is to control development within the town of Oberon so as to create a business area with a special atmosphere and streetscape. It also applies to the other areas of the Council area where commercial and/or industrial development is proposed.</i></p> <p><i>a) The aim of the plan is to promote the development of a visually pleasing and appealing development of the Commercial Centre and industrial area</i></p> <p><i>b) The objectives of this plan are to:</i></p> <p><i>i) Control the material to be used in the façade of the commercial and industrial development.</i></p> <p><i>ii) Apply specific controls for the setback of development.</i></p> <p><i>iii) Apply requirements for traffic management and parking.</i></p> <p><i>iv) Allow flexibility in the application of the controls.</i></p>	Y	A Visual Impact Assessment accompanies this EIS and details the impacts on the viewshed of Oberon, as well as recommending mitigation measures. Much of the new development melds in to the existing plant on site, which significantly reduces the visual impact of the Project.
D4.1 – Building Setback	<p><i>Provide a building setback minimum of 6 metres from the Street and 4.5 metres from any side street.</i></p> <p><i>Where there is an existing development which is built to the front boundary along the Street, the Plan does not require that building to be set back upon redevelopment or extension.</i></p> <p><i>If there is a development proposed which adjoins an existing development built to the front boundary, or closer than 6 metres to the front boundary, the setback requirement may be reduced heaving regard to the adjoining development and the</i></p>	Y	Additional development is proposed fronting Lowes Mount Road. This is set back approximately 40m from the street. No side street frontage is proposed.

	<i>overall appearance of the proposed development in the streetscape.</i>		
D4.2 – Building Facade	<i>The building facade should be designed to enhance the visual amenity of the area. The building designer will be required to give special consideration to the building facade and the site landscaping.</i>	Y	The façade of the Project has been designed to integrate in to the site context, and provide a functional but attractive streetscape. Consistent materials, integrating new buildings with existing buildings and appropriate site landscaping help achieve compliance with this DCP requirement.
D4.3 – Setback Area Use	<i>Each development will be considered on its merits and having regard to the adjoining development and the development when considered within the existing streetscape.</i>	Y	The proposed development is located on an existing industrial site.
D4.4 - Parking	<p><i>The development will be required to provide for car parking at the rear of the development site in accordance with Councils Parking Code. Where this is not possible the developer may choose to pay Council the appropriate carparking contribution</i></p> <p><i>The use of lots adjoining the rear of a commercial lot, for car parking is permissible. The use of these lots or the use of an existing rear lane is encouraged so as to reduce the number of driveways, which would otherwise cross the footpath. Disabled carparking is required on each development site. Signposting indicating the availability and location of car parking on the site is to be provided at the front of the site.</i></p>	N	Car parking is provided at the front of the site. This is an existing car park that is to be extended.
D4.5 – Access Driveways	<i>The access driveways must be designed in accordance with appropriate Engineering Specifications at full cost to the Developer to Councils satisfaction. The access crossing over the footpath from the kerb of the road/street to the gateway of the development is to be concreted.</i>	Y	Noted. No significant changes to existing access points are proposed.
D4.6 – Site	<i>The design of the driveways and</i>	Y	Noted, and all vehicles, including

Access	<i>manoeuvring areas are to be, wherever possible, accessible to rigid trucks for loading and unloading and will enable on site reversing movements for the forwards direction entry and exit of all vehicles, including the rigid trucks. Council will require turning circles to be detailed on the site plan.</i>		heavy vehicles, are able to leave the site in forward manner.
D4.7 - Signs	<i>The development will be required to ensure that no sign is projecting over the front boundary of the lot. Refer to State Environmental Planning Policy 64 – Advertising and Signage for the requirements for signage. The SEPP 64 provides for business and building identification signs.</i>  <i>Development consent is required for signage. NB. Signage design/details may be included in the Development application submission for the commercial or industrial activity</i>	Y	No significant additional signage is proposed to be carried out as part of the Project.
D4.8 - Awnings	<i>Council will require all commercial development in the Oberon Street to provide awnings over the adjacent footpath to provide weather protection for pedestrians.</i>		Not relevant to the proposed development.

Table 4: Compliance with Oberon DCP

#### 7.4. Licencing and Other NSW Environmental Approvals

A number of existing licence approvals apply to the existing development on site. Due to the significant number of changes to the operation of the facility, new licence conditions will be required to be issued by the EPA. The levels set by these licenses should form the basis of any Conditions of Consent regarding air, noise, odour, general pollution control and water quality.

## 8.0 ENVIRONMENTAL COMMITMENT

### 8.1. Policy Statement

Borg Panels has an overarching Environmental Policy that governs corporate and individual employee behaviour. The Guiding Principles of this policy are:

- Identify, understand and effectively manage risks in our business;
- Use common tools, resource, training and systems;
- Build environmental capability and responsibility at all levels;
- Use relevant measures to drive; and
- Without exception, we will all be held accountable

Beneath this overarching policy, a number of more detailed plans relating to specific environmental actions, controls and commitments operate.

This Project, including the design, planning and impact assessment and operations, would be undertaken in accordance with this policy.

### 8.2. Environmental Management Program

Under DA 27/95 Borg are required to prepare yearly environmental reports that demonstrate compliance with the licensing requirements and conditions of consent. Such an Environmental Management Program is proposed to continue.

## PART F – ISSUES IDENTIFICATION

### 9.0 STAKEHOLDER ENGAGEMENT

#### 9.1. Consultation with Department of Planning and Environment

Since the original lodgement of the 1995 DA, there has been ongoing consultation with the Department regarding the operations of the site, including the lodgement of a number of modifications to the consent under S.75W of The Act.

This has continued under the ownership of Borg Panels.

In relation to the Project, Borg Panels has been in ongoing discussions with the Department regarding the overall aims of the site, including providing updates on future development intentions, and to consult with the Department regarding appropriate approval paths and requirements.

In April 2015, Borg Panels prepared a Preliminary Environmental Assessment for the Department to consider. This report outlined the general scope of the Project, as well as identifying some of the preliminary matters for consideration. In April 2015 the Department issued the Secretary's Environmental Assessment Requirements (SEARs) for the Project.

In accordance with Section 89G of the EP&A Act, the matters raised in the SEARs have been addressed within this EIS. Each of the matters raised by the Secretary-General for consideration in the EIS is outlined in Table 10, together with the relevant sections of the EIS where each matter is addressed.

Matter	Section
<p>The Environmental Impact Statement (EIS) must meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>.</p> <p>Notwithstanding the key issues specified below, the EIS must include:</p> <ul style="list-style-type: none"> <li>a detailed description of the development including: <ul style="list-style-type: none"> <li>need for the proposed development;</li> <li>justification of the proposed development;</li> <li>proposed output and scope of works;</li> <li>sequence or stage/s of the proposed development during construction and operation;</li> <li>likely interactions between the proposed development, the existing operation and other neighbouring developments; and</li> <li>plans of any proposed building works.</li> </ul> </li> <li>consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments;</li> <li>a risk assessment of the potential environmental impacts of the proposed development, identifying the key issues for further assessment;</li> <li>a detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment which includes: <ul style="list-style-type: none"> <li>a description of the existing environment, using sufficient baseline data;</li> <li>an assessment of the potential impacts of all stages of the proposed development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes; and</li> <li>a description of the measures that would be implemented to avoid,</li> </ul> </li> </ul>	<p><b>Section 4</b> <b>Section 4.1</b> <b>Section 29.3</b> <b>Section 6</b></p> <p><b>Section 6.3.1</b></p> <p><b>Section 6</b> <b>Section 6</b></p> <p><b>Section 7</b></p> <p><b>Executive Summary</b></p> <p><b>Section 10-23</b></p>

<p>minimise and if necessary, offset the potential impacts of the proposed development, including proposals for adaptive management and/or contingency plans to manage any significant risks to the environment.</p> <ul style="list-style-type: none"> <li>a consolidated summary of all proposed environmental mitigation, management and monitoring measures, highlighting commitments included in the EIS.</li> </ul> <p>The EIS must also be accompanied by a report from a qualified quantity surveyor providing:</p> <ul style="list-style-type: none"> <li>a detailed calculation of the capital investment value (CIV) as defined in clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>) of the proposal, including details of all assumptions and components from which the CIV calculation is derived;</li> <li>a close estimate of the jobs that will be created during the construction and operational phases of the proposed development; and</li> <li>certification that the information provided is accurate at the date of preparation.</li> </ul>	<p><b>Section 27</b></p> <p><b>Appendix I</b></p>
<p>The EIS must address the following specific matters:</p> <ul style="list-style-type: none"> <li><b>Consolidation of Operations</b> - including: <ul style="list-style-type: none"> <li>a clear description, including figures and plans, of Borg's existing and proposed operations which would apply to any new SSD consent; and</li> <li>details of how any new SSD consent and any existing development consents for the site would interact, including any conditions that may no longer apply.</li> </ul> </li> <li><b>Strategic Context</b> - including: <ul style="list-style-type: none"> <li>justification for the proposed development and suitability of the site; and</li> <li>demonstration that the proposed development is generally consistent with all relevant planning strategies including but not limited to, the Oberon Local Environmental Plan 2013, State Environmental Planning Policy (Infrastructure) 2012 and relevant Development Control Plans (DCPs).</li> </ul> </li> <li><b>Noise and Vibration</b> - including: <ul style="list-style-type: none"> <li>description of all potential noise and vibration sources generated from construction, operational and traffic noise;</li> <li>a quantitative assessment of noise and vibration impacts to surrounding receivers from existing on-site activities and the proposed development in accordance with the relevant Environment Protection Authority (EPA) Guidelines; and</li> <li>details of mitigation, management and monitoring measures for preventing and/or minimising noise emissions.</li> </ul> </li> <li><b>Air Quality</b> - including: <ul style="list-style-type: none"> <li>a description of all potential air emission and odour sources;</li> <li>a quantitative assessment of the air quality (particularly dust and formaldehyde) impacts of the proposed development on surrounding receivers in accordance with relevant EPA Guidelines; and</li> <li>details of mitigation, management and monitoring measures for preventing and/or minimising emissions.</li> </ul> </li> <li><b>Traffic and Access</b> - including: <ul style="list-style-type: none"> <li>accurate predictions of the traffic volumes likely to be generated</li> </ul> </li> </ul>	<p><b>Section 7</b></p> <p><b>Section 28</b></p> <p><b>Section 7</b></p> <p><b>Section 13</b></p> <p><b>Section 11</b></p> <p><b>Section 10</b></p>

<ul style="list-style-type: none"> <li>- during construction and operation;</li> <li>- consideration of the existing traffic generated by the existing operation;</li> <li>- a detailed traffic impact study of the proposed development in accordance with RMS Guidelines including:             <ul style="list-style-type: none"> <li>o hours and days of construction and operation and how the operations will interact with other road users; and</li> <li>o road transport volumes and types broken down into origin and destination, travel routes and peak hours for the construction and operation of the proposed development.</li> </ul> </li> <li>- proposed access arrangements for the proposed development; and</li> <li>- layout of the internal road network, parking facilities and infrastructure within the site boundary.</li> <li>• <b>Soils and Water</b> - including:             <ul style="list-style-type: none"> <li>- a detailed assessment of potential soil, surface, flooding and groundwater impacts (both quality and quantity);</li> <li>- soil and groundwater contamination arising from previous uses on the site and any proposed management measures;</li> <li>- a detailed and consolidated site water balance for the proposed development;</li> <li>- details of water proposed to be taken from each water and groundwater source and how this relates to any relevant water sharing plans;</li> <li>- an assessment of any volumetric water licensing requirements (including those for ongoing water intake during operation);</li> <li>- description of proposed erosion and sediment controls during construction and operation;</li> <li>- description of the surface and stormwater management system, including on-site detention, and measures to use and reuse water; and</li> <li>- demonstration that all practical options to avoid discharge have been implemented and environmental impact minimised where discharge is necessary.</li> </ul> </li> </ul>	<p><b>Section 15 and 16</b></p>
<ul style="list-style-type: none"> <li>• <b>Hazards and Risk</b> - including:             <ul style="list-style-type: none"> <li>- a preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 - Hazardous and Offensive Development and Applying SEPP 33, with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the proposal;</li> <li>- a Preliminary Hazard Analysis (PHA), should a preliminary screening indicate that the project is 'potentially hazardous'. The PHA must be prepared in accordance with Hazardous Industry Planning Advisory Paper No.6 - Guidelines for Hazard Analysis (DoP, 2011) and Multi Level Risk Assessment (DoP, 2011); and</li> <li>- justification for whether the whole site should be considered a major hazards facility.</li> </ul> </li> </ul>	<p><b>Section 12</b></p>
<ul style="list-style-type: none"> <li>• <b>Waste Management</b> - including:             <ul style="list-style-type: none"> <li>- details of the quantities and classification of all waste streams to be generated on site;</li> <li>- details of waste storage, handling and disposal; and</li> <li>- identification of all waste streams that are proposed to be brought to site (for alternative fuel purposes) and identification of the</li> </ul> </li> </ul>	<p><b>Section 17</b></p>



<p>appropriate waste legislative framework under which it is permissible to import this waste on to site (e.g resource recovery exemptions); and</p> <ul style="list-style-type: none"> <li>- details of measures that would be implemented for treatment and disposal in accordance with the relevant EPA guidelines.</li> </ul> <ul style="list-style-type: none"> <li>• <b>Visual Amenity</b> - including an assessment of the potential visual impacts of the proposed development on the amenity of the surrounding area;</li> <li>• <b>Greenhouse Gas</b> - including an assessment of the potential greenhouse gas emissions of the proposed development.</li> <li>• <b>Biodiversity</b> - including an assessment of biodiversity impacts arising from the proposed expansion of the facility in accordance with the Framework for Biodiversity Assessment or relevant Office of Environment and Heritage guidelines.</li> <li>• <b>Heritage and Aboriginal Cultural Heritage</b> - including an assessment of potential heritage impacts of the proposed development.</li> <li>• <b>Cumulative</b> - including the existing on-site operations, all existing industrial facilities in the area and other nearby approved and proposed developments, particularly in relation to noise, air quality, soil, water, traffic, waste and hazards and risk.</li> </ul>	<p><b>Section 19</b></p> <p><b>Section 18</b></p> <p><b>Section 21</b></p> <p><b>Section 22 and 23</b></p> <p><b>Section 24</b></p>
<p>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the <i>Environmental Planning and Assessment Regulation 2000</i>. These documents should be included as part of the EIS rather than as separate documents.</p>	<p><b>Appendix 1</b></p>
<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners.</p> <p>In particular you must consult with:</p> <ul style="list-style-type: none"> <li>• Oberon Shire Council;</li> <li>• Environment Protection Authority;</li> <li>• Roads and Maritime Services;</li> <li>• Office of Environment and Heritage;</li> <li>• NSW Fire and Rescue;</li> <li>• NSW Office of Water;</li> <li>• NSW Department of Primary Industries;</li> <li>• WorkCover; and</li> <li>• the local community and stakeholders.</li> </ul> <p>The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p>	<p><b>Section 9.2 and 9.3</b></p>

Table 5: Matters Raised in SEARs

## 9.2. Agency Consultation

An initial stakeholder briefing was held on February 5 2016. This was attended by representatives of:

- Roads and Maritime Services (RMS)
- Department of Premier and Cabinet
- Environmental Protection Authority
- Workcover
- Office of Water
- Oberon Council
- Department of Primary Industries
- Office of Environment and Heritage
- NSW Fire Service
- Local Employment Providers

This allowed for background information about the company, the aims for the site, and the environmental and social mitigation measures proposed to be undertaken.

No additional requirements above those identified in the SEARS were requested to be undertaken.

As a result of this consultation, a number of the draft specialist sub-consultant reports have been distributed to the relevant government agencies, including Roads and Maritime Services and Office of Environment and Heritage. This has allowed for these agencies to review the proposal and make suggestions as to how impacts can be minimised, and what additional information they require. This information has been included in the final versions of the report.

## 9.3. Community Consultation

A number of factsheets have been produced which have been distributed throughout Oberon. These factsheets provide information regarding timelines, number of jobs created, proposed development, possible mitigation measures and the benefits of the Project for the community. These factsheets have included details regarding the formal period for community feedback on the Project. This has ensured that the community is aware of the proposed development, and that they will have an opportunity to provide their views on the Project during the assessment phase.

A meeting was held with the Oberon Timber Complex Community Consultative Committee on December 23 2015 in order to provide information regarding the Project. This allowed for a question and answer session with Borg Panel representatives. Minutes for this meeting are attached in Appendix D. The main area of concern that were raised was the impacts of noise on the caravan park located nearby. The other questions raised were generally around the economic benefits the Project would bring to the region through jobs and investment, and Council requested that consideration be given to the impacts on the road network from the Project.

An open public forum was held in Oberon on Thursday 31 March in Oberon, with any interested parties invited to attend. A total of five (5) local residents attended. This information session was advertised in the local paper. The advertisement for this is shown in Appendix D.

In addition, targeted stakeholder meetings have been held with key community representatives, including members of the Oberon Tourism Association in order to discuss their concerns as one of the other main employment generating groups within the town. The minutes of these meetings are attached as Appendix D.

The majority of the concerns raised at these meetings focussed on noise and air quality impacts from the Project. As a result, a particular focus has been on reducing the impacts of these elements on the community.

## PART G – ENVIRONMENTAL IMPACT ASSESSMENT

### 10.0 TRAFFIC AND TRANSPORT

Borg Panels engaged SMEC Pty Ltd to undertake a traffic and transport study for the project. This report details the existing environment as well as the potential impacts of the Project and is attached as Appendix E.

#### 10.1. Existing Environment

Lowes Mount Road is a two-way single lane road with a north-south alignment. The carriageway width varies between 8 and 15 metres where the latter accommodates a separated right-turn lane into the subject site. Site access is provided off Lowes Mount Road via Gate 4 and Gate 6. A right-turn lane that is 60 metres in length is provided at the Gate 6 entry.

Endeavour Street has a north-south alignment with a 12-metre wide undivided carriageway. Endeavour Street is a no-through road with a U-turn bay at its northern end.

The existing site access arrangements are as follows. Gate 4 for employees and Gate 4 and 6 for distribution trucks. Currently, log trucks access the site via Gate 5, which is to be maintained during future scenarios. This is shown in Figure 11 below.

The existing geometry of access points adequately allow for 19 metre semi-trailers and 19-26 metre B-double trucks swept paths.



Figure 11: Site Access

SMEC commissioned traffic surveys at key locations surrounding the subject site. The purpose of the surveys was to determine existing traffic conditions at key intersections.

Surveys were conducted at the following intersections:

- Site 1: Abercrombie Road and Rupert Street (give way)
- Site 2: O'Connell Road and Albion Street (give way)
- Site 3: Lowes Mount Road and Albion Street (give way)
- Site 4: Albion Street and Horace Street (give way)
- Site 5: Albion Street and Endeavour Street (give way)
- Site 6: North Street and Carrington Avenue (give way)
- Site 7: Oberon Street, Ross Street and unnamed road (give way)
- Site 8: Duckmaloi Road and Albion Road (give way).

These surveys were undertaken on Tuesday 25 August 2015 during the morning (6am to 9am) and afternoon (3pm to 6pm) peak periods.

Continuous mid-block traffic surveys were undertaken for a one-week period between Tuesday 25 August and Tuesday 1 September 2015, at the following locations:

- O'Connell Road (north of Albion Street)
- Lowes Mount Road (north of Albion Street)
- Duckmaloi Road (south-east of Albion Street).

All these locations were given an "A" rating, signifying a wait time of less than 14 seconds.

## 10.2. Potential Impacts

The analysis of the potential impacts was undertaken in two stages. The first was the potential impacts during the construction stage. The second potential impacts during the operation of the facility.

During the construction phase of the project the following traffic generation is anticipated to occur:

Phase	Duration of peak	Vehicle movements per day (two-way trip)	Number of personnel
Site establishment and construction	24 months	240 trips per day (light vehicles) 60 trips per day (heavy vehicles)	Maximum 120 per day

Table 6: Traffic Movements - Construction

In regards to the construction, the traffic report concluded that:

- The construction phase is likely to have minimal impact on the existing transport network, with the majority of the vehicle movements occurring outside of the general peak periods
- No public transport provisions are required to support the construction phase of the works
- There will be no impacts on the existing pedestrian and cyclist network during construction.

The operational phase of the Project will have the following traffic impacts (light vehicles only):

Operational Year	Number of personnel	Vehicle movements per day (one-way trip)	Vehicle movements per day (two-way trip)
Existing	231	146	292
2019	291	184	368
2029	306	194	388

Table 7: Traffic Movements - Operation (light vehicles)

The operational traffic generation for heavy vehicles will be as follows:

Operational Year	Vehicle movements per day (one-way trip)	Vehicle movements per day (two-way trip)	Vehicle Movements per peak hour (one-way trip)	Vehicle Movements per peak hour (two-way trip)
Existing	61	122	6	12
2019	109	218	10	20
2029	160	320	14	28

Table 8: Traffic Movements - Operation (heavy vehicles)

In regards to traffic movements to and from the site as a result of the Project, the traffic report concluded that:

- All impacted intersections surrounding the site are operating at an acceptable level of Service A during AM and PM peak periods
- All intersections experience minor increases in queue lengths and average delays, which are considered to have a negligible impact on the current road network. A comparison of data for existing conditions and 2027 operations indicates the greatest increase in queue length and average delay are 1.2 metres and 2.3 seconds, respectively. This occurs at Site 8 (intersection of Duckmaloi Road and Albion Road).
- Traffic generated due to additional site personnel is to occur outside of AM and PM peak periods, and therefore, is considered to have a negligible impact on the existing road network.

The Project can be undertaken with negligible impacts on the existing road transport network.

### 10.3. Management and Mitigation Measures

The following management and mitigation measures are proposed by SMEC.

- Preparation of a detailed Construction Traffic Management Plan for the construction phase of the development in accordance with Roads and Maritime's Traffic Control at Worksites Manual (version 4.0 June 2010), which specifies:
  - Hours of haulage, which do not impose on peak periods and school drop-off and pickup times
  - Haulage routes, including the source of locations and their access points for the site
  - Designated areas within the site for truck movements, parking, loading and unloading,
  - Sequence for implementing traffic works and traffic management devices if required
  - Safety principles for construction activities, such as speed limits around the site and procedures for specific activities
  - Procedures for inspections and record keeping for maintaining traffic control measures
  - Undertake a pavement inspection pre- and post-construction to ensure the pavement condition has not been further degraded due to construction traffic.

In addition, the traffic report recommends that as part of the Project, the proponent:

- Undertake a pavement inspection pre- and post-construction to ensure the pavement condition has not been further degraded due to construction traffic.

This should be conditioned as part of the Project approval.

The traffic report concludes that the road network has more than enough capacity to absorb the Project without requiring any additional works.



## 11.0 AIR QUALITY

An Air Quality Impact Assessment (AQIA) for the proposed Project has been prepared by Stephenson Environmental Management Australia (SEMA) and is provided in Appendix F

### 11.1. Existing Environment

The air quality in Oberon has remained consistent over recent years. This is due to the ongoing operation of four (4) key manufacturing facilities that form part of the Oberon Timber Complex, and a gas metre station serving the Moomba to Sydney gas pipeline (located adjoining the Project). The key impacts on air quality in the area that can be linked to the existing operations on site are:

- Total suspended particulates (TSP)
- Particulate matter less than 10 microns (PM10)
- Nitrogen Dioxide
- Formaldehyde

A report detailing the current air quality and emission levels from the Borg facility has been prepared by Stephenson Environmental Management Australia, and was carried out in February/March 2016. This report analysed the impacts from the current Borg operations and modelled the projected impact of the Project.

The modelling methodology used was taken from the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales*. This lists the statutory methods for modelling and assessing emissions of air pollutants from stationary sources in the state.

These procedures and methodologies are reviewed every five years, and the IAC levels subject to change. As such, there can be inconsistency between current IAC levels and legal levels of pollutants that can be discharged under licence.

The existing MDF plant has an impact on the air quality of the area. It represents a major manufacturer/industry in Oberon, and as such some pollutants are produced. These are generally within the levels under the 27/95 Consent. It is noted that these levels are above the current requirements, however they are generally compliant with all existing approvals and licences issued for the site.

The air pollution generated by the current MDF facility (assessed to the current GLC criteria, not approved levels) are as follows:

Pollutant	Units	Averaging Period	IAC	Existing Facility
TSP (100%ile)	µg/m <sup>3</sup>	Annual	90	7
PM <sub>10</sub> (100%ile)	µg/m <sup>3</sup>	24 Hours	50	15
	µg/m <sup>3</sup>	Annual	30	2
NO <sub>2</sub> * (100%ile)	µg/m <sup>3</sup>	1 Hour	246	182
	µg/m <sup>3</sup>	Annual	62	4
HCHO (99.9%ile)	mg/m <sup>3</sup>	1 hour	0.02	0.07

Table 9: Existing Pollutant Levels

Key:

TSP = total suspended particulate matter

PM10 = particulate matter less than 10 microns

IAC = Impact Assessment Criteria

NO<sub>2</sub> = nitrogen dioxide

HCHO = formaldehyde  
 GLC = Ground Level Concentration  
 $\mu\text{g}/\text{m}^3$  = micrograms per cubic metre  
 $\text{mg}/\text{m}^3$  = milligrams per cubic metre  
 \* = 40% NO<sub>x</sub> to NO<sub>2</sub> conversion assumed

In regards to establishing receptors, Cartesian grid receptors were setup over the modelling domain at 50 metre intervals. Each 50m block represents a receptor. Figure 12 illustrates these receptors. Additional receptors were setup at the boundary of the Borg site. Receptors inside the boundary of the Borg Oberon site were removed.

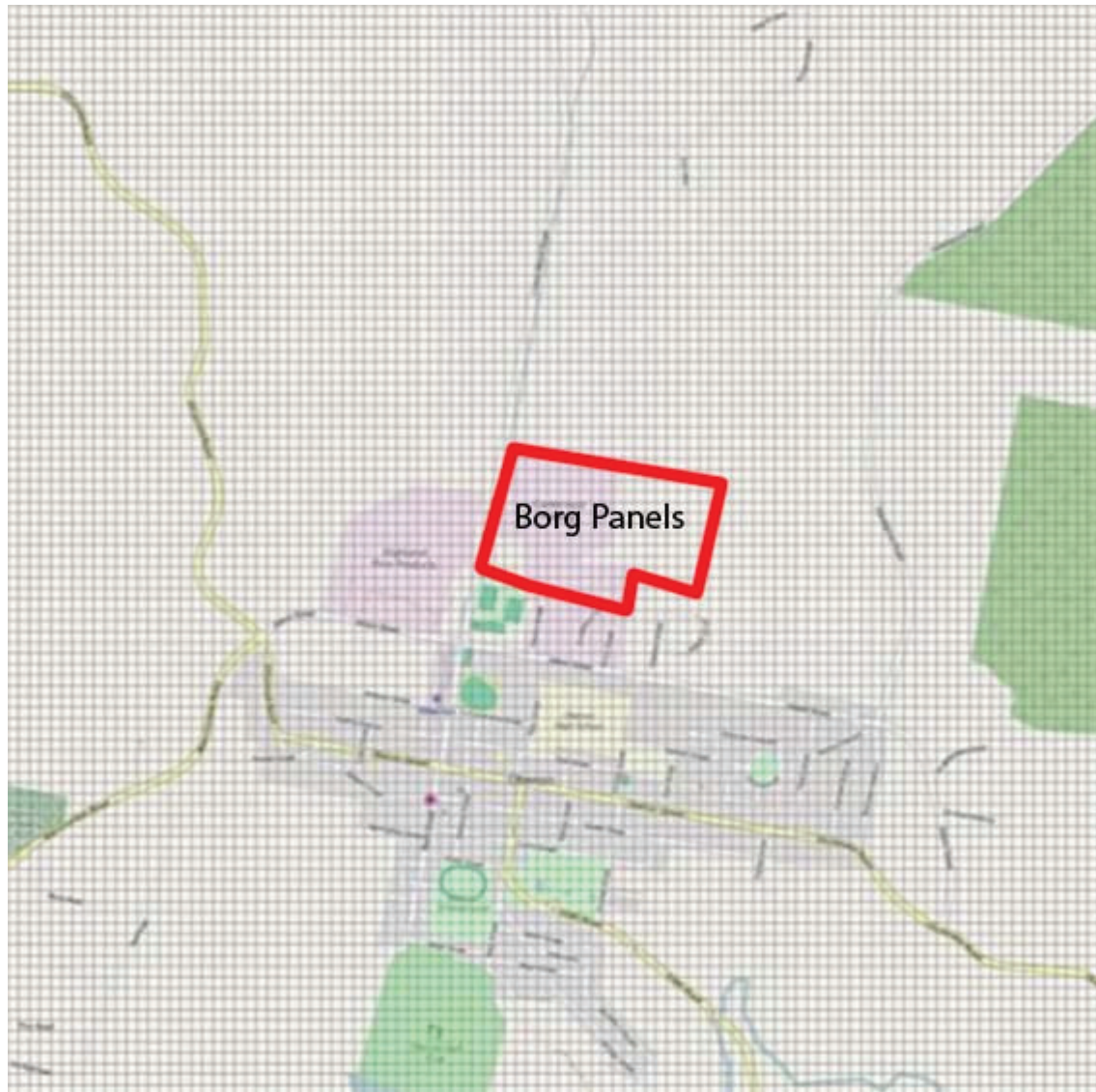


Figure 12: Receptor Locations

The meteorological data for the Project was processed in two steps. MM5 (5th-generation Mesoscale Model) which is a prognostic meteorology model developed by Pennsylvania State University and the U.S. National Center for Atmospheric Research (NCAR) was used for modelling 2014 surface and upper air meteorological data for the dispersion modelling domain. Further processing of the MM5 data was then undertaken in AERMET to produce the wind field and weather data suitable for dispersion modelling with AERMOD.



Figure 13 summarises the annual 2014 wind strength, direction and frequency near the site, showing prevailing winds were from a south-westerly direction. The 2014 meteorological data was selected as representative for the purposes of the dispersion modelling.

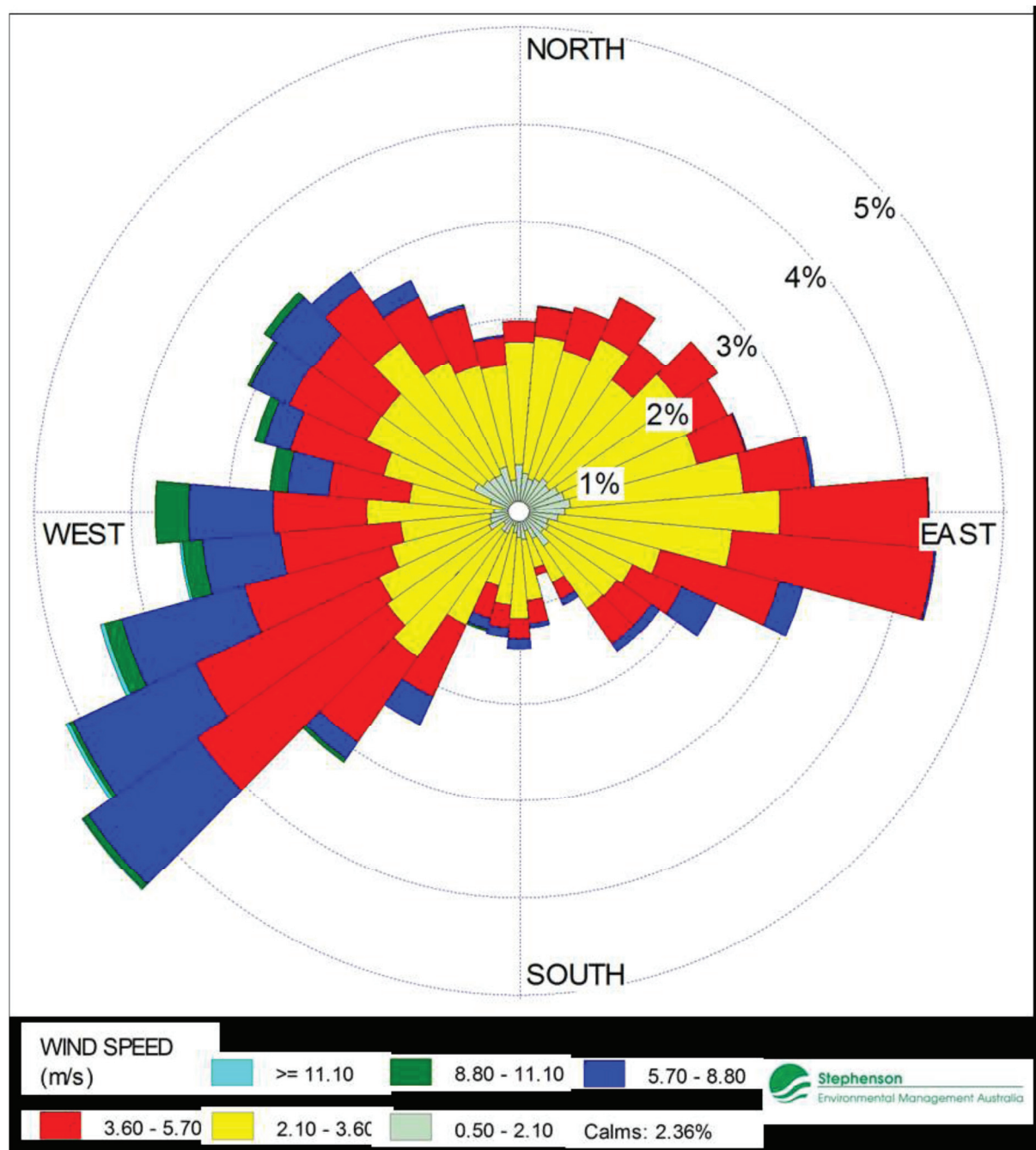


Figure 13: Wind Modelling Data

Generally, Oberon has mild to warm summers and cool to cold winters. Average summer temperatures range from 9C to 25C and average winter temperatures range from 0 to 9C. Frosts occur throughout autumn, winter and spring, and there is regular snowfall throughout winter. On average Oberon records 80.8 clear days per year. As can be seen from the Windrose there are very few periods where there is no wind in the subject area.

Oberon is located on the Central Tablelands on the Oberon Plateau. See Figure 14 below.

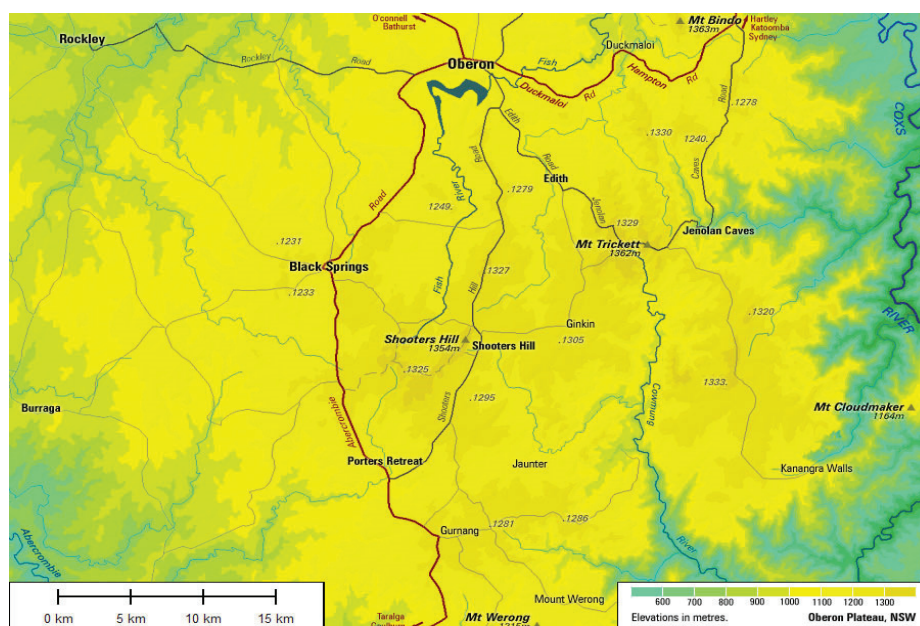


Figure 14: Oberon Plateau (Source: <http://weather.ajcmiskelly.id.au/other/gdr/>)

## 11.2. Potential Impacts

The potential impacts from the site (being the particle board facility) can be split in to two distinct phases. Construction and Operation.

### 11.2.1 Construction

The impacts from construction on air quality are considered to be minimal. A detailed Construction Environmental Management Plan (CEMP) will be prepared for the site prior to any works being undertaken. This will provide details regarding the proposed mitigation measures. However, the following table (table 10) identifies the key site works that may generate air quality impacts, and the general mitigation measures to be adopted.

Activity	Mitigation Measure
Demolition, earthmoving and excavation	<ul style="list-style-type: none"> <li>• Water sprays for dust suppression</li> <li>• Timing with respect to wind direction</li> <li>• Location and proximity of sensitive land uses</li> </ul>
On-site traffic movements	<ul style="list-style-type: none"> <li>• Water sprays for dust suppression</li> <li>• Gravel or concrete to seal main trafficable areas</li> </ul>
Diesel exhaust emissions	<ul style="list-style-type: none"> <li>• Proper maintenance and tuning of engines</li> <li>• Correct fuel specification</li> <li>• Limiting idling time</li> <li>• Avoiding overloading</li> <li>• Appropriate height of discharge above ground level</li> </ul>
Wind erosion from stockpiled material.	<ul style="list-style-type: none"> <li>• Water sprays</li> <li>• Bunker storage</li> <li>• Limiting size of stockpiles</li> <li>• Vertical barriers (or covering the pile if it is small)</li> </ul>

Table 10: Construction air quality impacts and mitigation measures

### 11.2.2 Operation

In order to establish the overall operational impacts, the potential Project impacts were firstly modelled. The cumulative impacts from the Particle Board plant and the modified MDF plant were then modelled. The following table is the cumulative impact from the Project and the proposed modified MDF facility.

Pollutant	Units	Averaging Period	IAC	Proposed Particle Board Plant	Cumulative Levels (PB Plant and Modified MDF Facility)
TSP (100%ile)	µg/m <sup>3</sup>	Annual	90	6	8
PM <sub>10</sub> (100%ile)	µg/m <sup>3</sup>	24 Hours	50	21	25
	µg/m <sup>3</sup>	Annual	30	3	4
NO <sub>2</sub> * (100%ile)	µg/m <sup>3</sup>	1 Hour	246	57	225
	µg/m <sup>3</sup>	Annual	62	1	4
HCHO (99.9%ile)	mg/m <sup>3</sup>	1 hour	0.02	0.01	0.03

Table 11: Proposed Pollutant Levels

Key:

TSP = total suspended particulate matter

PM<sub>10</sub> = particulate matter less than 10 microns

IAC = Impact Assessment Criteria

NO<sub>2</sub> = nitrogen dioxide

HCHO = formaldehyde

GLC = Ground Level Concentration

µg/m<sup>3</sup> = micrograms per cubic metre

mg/m<sup>3</sup> = milligrams per cubic metre

\* = 40% NO<sub>x</sub> to NO<sub>2</sub> conversion assumed

It is noted that there is compliance with all relevant IAC criteria for both the Project and the cumulative operation, with the exception of the levels of HCHO. It is important to note that the levels of HCHO are not consistent across the modelling domain. There are minor areas in which the levels creep above 0.02.

These locations are on a hillside to the north east of the site, outside of the main Oberon township. The greater Oberon area is generally located around the 0.02mg/m<sup>3</sup> concentration level. However, there is the potential for an increase of up to 0.03mg/m<sup>3</sup>, with the GLC being in the 0.02-0.03mg/m<sup>3</sup> range. The majority of these areas constitute either rural landscape or state forestry plantations, and whilst the modelling has been carried out with worst case manufacturing scenarios the overall levels are still generally towards the lower level of the spectrum. All feasible mitigation measures have been put in place, and the minor non-compliance for one particular form of chemical is not anticipated to cause significant impacts.

Figure 15 below illustrates the potential cumulative HCHO GLC for the modified MDF and Particle Board facility.



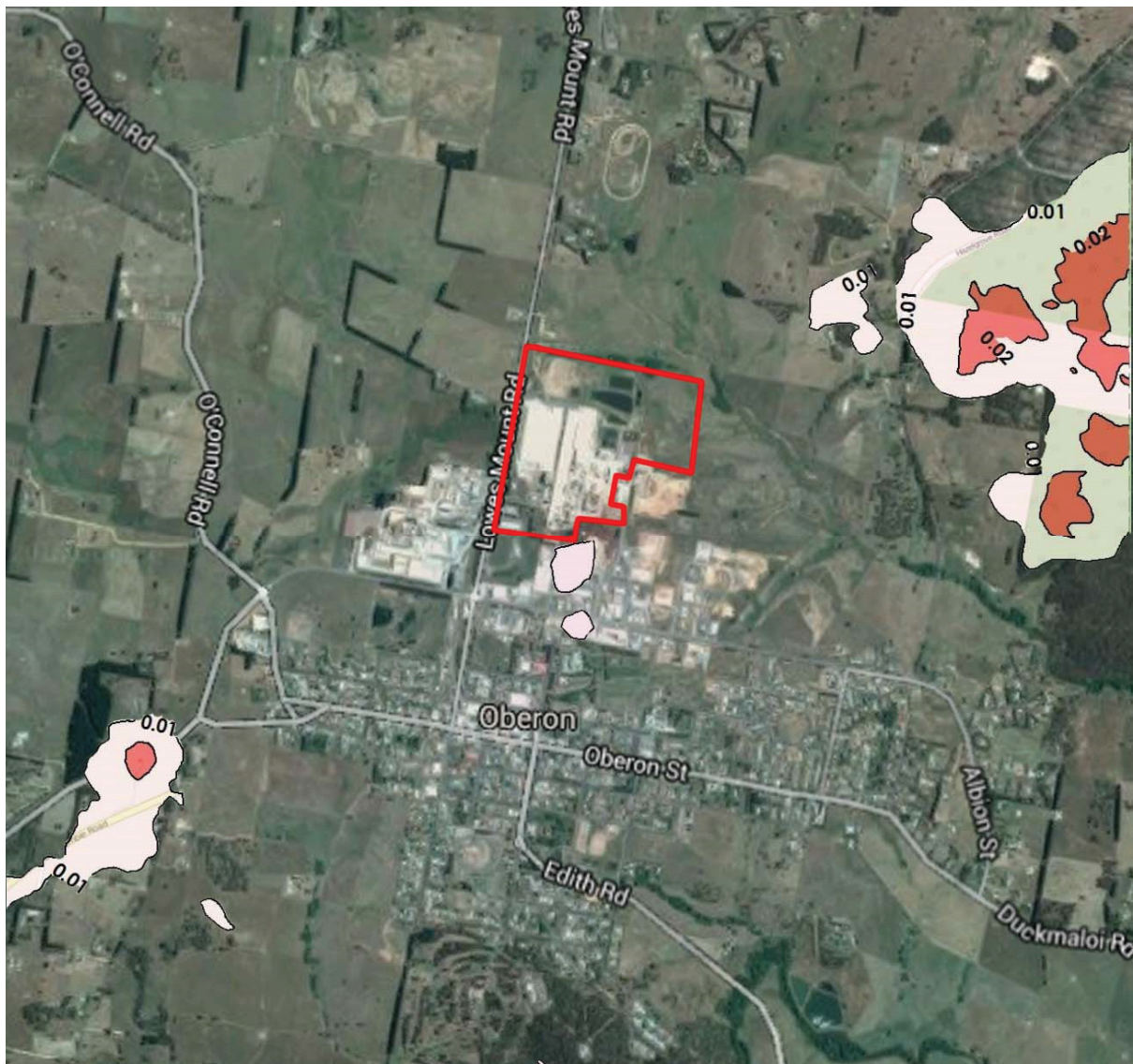


Figure 15: Cumulative HCHO Levels

As can be seen above, the Project will create the potential for areas of a cumulative GLC of HCHO above the current IAC level. However, it is important to note that this modelling is based on worst case scenarios (a 24 hours 7 day a week operation), when in reality the Project will have shut days, breakdowns and production stoppages. This represents a significant improvement over current levels.

It is important to note that this is a significant improvement over current levels (which, it has to be noted, comply with the requirements under the existing approval) which are  $0.07\text{mg}/\text{m}^3$ . This reduction has come from the installation of a number of new devices within the existing plant and utilising existing site processes to form part of the integrated site control strategy.

The cumulative annual particulate matter less than 10 microns (PM10) generated from the Project have been modelled as being  $4 \mu\text{g}/\text{m}^3$ , where the IAC is  $30 \mu\text{g}/\text{m}^3$ . This clearly demonstrates that impacts from PM10 on the area, including the Oberon township are substantially less than the regulated levels. This is achieved by using modern filtration techniques. Figure 16 below demonstrates that annual cumulative averages.



Figure 16: Cumulative Annual Average PM10 GLC

The cumulative annual total solid particulates (TSP) generated from the Project have been modelled as being  $8 \mu\text{g}/\text{m}^3$ , where the IAC is  $90 \mu\text{g}/\text{m}^3$ . This clearly demonstrates that impacts from TSP on the area, including the Oberon township are substantially less than the regulated levels. This is achieved by using modern filtration techniques. Figure 17 below demonstrates that annual cumulative averages.

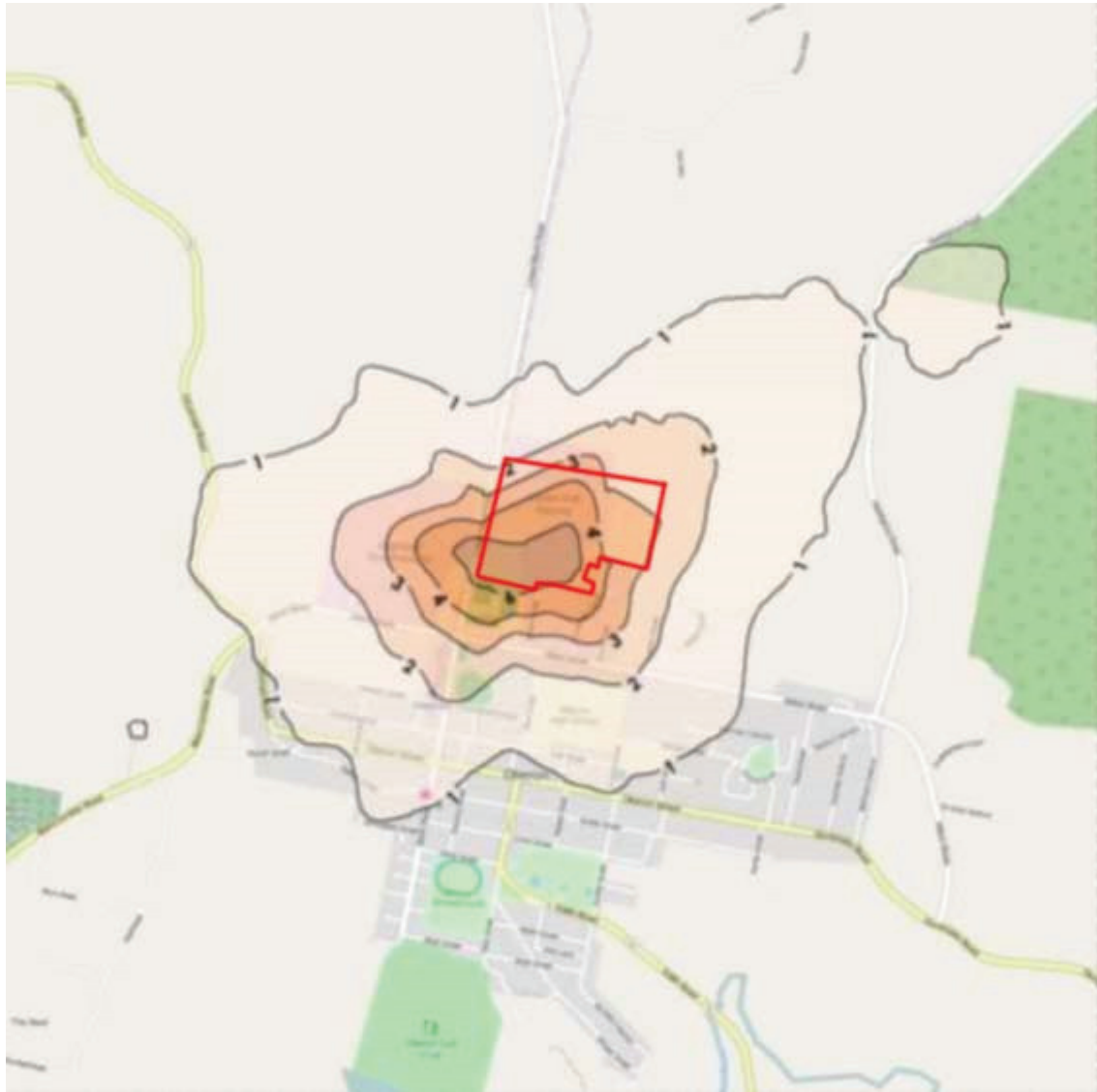


Figure 17: Cumulative Annual Average TSP

### 11.3. Management and Mitigation Measures

The report details mitigation measures that are to be implemented in to the existing MDF Plant, and the impacts from these modifications. These are:

- EPA ID 23 together with another additional Paper treater (with a total flow rate of 80,000 m<sup>3</sup> per hour), will be diverted to EPA ID 11 (Conti-2 heat plant) where 95% of formaldehyde will be removed before discharge to the atmosphere;

- EPA ID 12-2 (Conti 1 roof vent) will be diverted to EPA ID 17 (Conti-1 heat plant) where 95% of formaldehyde will be removed before discharge to the atmosphere;
- A new 'combined stack' will be installed. This stack is proposed to be 40 metres high, 1.5 metres diameter, with a total flow rate of 100,000 m<sup>3</sup> per hour;
- EPA ID 4 (DC1 baghouse) and EPA ID 5 (DC2 baghouse) will be discharged to the atmosphere through the proposed combined stack;
- A wet scrubber system will be installed on the Conti 2 press line. This system is designed to emit a maximum of 40 mg/m<sup>3</sup> of TSP and 30 mg/m<sup>3</sup> of formaldehydes with a total flowrate of 100,000 m<sup>3</sup> per hour, which will be emitted through the combined stack.

These works to the existing plant decrease the overall emissions generated by the existing works.

In regards to the Particle Board component of the Project, the following measures are proposed:

- E12 (Baghouse dust filter) will utilise dispersion to reduce impacts.
- Press scrubber does not vent directly to atmosphere as the emissions will be diverted to the Combustion chamber and excess gas will be emitted via the WESP stack.
- Wet Electrostatic Precipitator will be used as particulate control for moisture laden air from dryer.
- Low NO<sub>x</sub> burner will be used for dryer Hot gas generator.
- Baghouses and cyclofilters will be installed on all other material transport and process applications to reduce particulate emissions.

It is important to note that the levels of formaldehyde produced by the plant have been significantly reduced under the Project. This reduction has been achieved at significant cost through the installation of more modern filtration and the establishment of integrated site emission control strategies.

Overall, the cumulative impacts on air quality (that is, the impacts from the proposed particle board facility) and the modifications of the MDF Plant represent a significant improvement on current air quality. These levels are significantly lower than the current levels (which comply with the licence conditions for the site). This reduction in levels indicates that the mitigation measures (detailed below) will be implemented in both the existing and proposed plant achieve a significant reduction in the levels of HCHO, PM<sub>10</sub> and TSP concentration.

[Note: air quality modelling is based on a zero background level, that is, the impacts from the industry surrounding the Project have not been included. The justification for this approach is that baseline OTC air quality data is not readily available and, in any case, Borg's capital improvements will reduce air emissions from the Borg site, thereby improving overall air quality in the OTC environs]



## 12.0 HAZARD AND RISK

Sherpa Consulting were engaged to undertake an assessment of potential hazard and risk posed by the Project, including consideration under SEPP 33. This report is attached as Appendix G.

### 12.1. Existing Environment

The existing environment includes an approved timber processing facility which manufactures MDF products and a separate business producing resins. Both are individually located on their own Lot and DP. Access to the Woodchem site is via a registered easement.

### 12.2. Potential Impacts

The Sherpa Consulting report details the potential impacts from the Project, and how these are assessed under the framework of SEPP 33. To determine whether a proposed development is 'potentially hazardous', the screening in SEPP 33 considers the type and quantity of hazardous materials stored on the site, the distance of the storage area to the nearest site boundary and the expected number of transport movements.

'Hazardous materials' are defined within the Applying SEPP33 guideline as substances that fall within the classification of the Australian Dangerous Goods (ADG) Code.

The following potentially hazardous materials and storage location is summaries in Table 11.

Material	Storage ID	Storage type	UN No.	DG Class	Approximate Quantity	SEPP 33 Threshold	Threshold Exceeded
Diesel	DF 1	Above Ground Tank	00C. 1	Comb-ustible C1	32m <sup>3</sup>	Diesel is not stored with other flammable materials, hence it is not considered to be potentially hazardous based on SEPP 33.  The adjacent Woodchem tank farm contains Class 3 and Class 8 materials (e.g. formalin, formaldehydes). However, this is located in a separate bunded area. As diesel is not located in the same area as flammable materials, the SEPP 33 threshold is not applicable.	Not applicable
Fuel, Aviation, Turbine Engine	JET 1	Above Ground Tank	1863	3 PG I	2.5m <sup>3</sup>	Based on Figure 8 in Ref. 1, the screening distance is approximately 2.2 m and 3 m from sensitive land uses (including residential) and all other land uses (e.g. commercial or industrial) respectively.	The separation distance between the proposed DG storage to the site boundary is approx. 65 m. Not potentially hazardous.

Petroleum Gases, Liquefied	LPG 1	Above Ground Tank	1075	2.1	6.0m <sup>3</sup>	Based on Table 3 in Ref.2, screening threshold is 10 tonne or 16 m <sup>3</sup> (if stored above ground).	Total Class 2.1 (LPG) storage does not exceed the SEPP33 threshold. Not potentially hazardous.
Hot Oil		Above Ground Tank		Combustible C1 heated above flash point – treat as Class 3	250m <sup>3</sup>	Treated as a Class 3, assuming the worst case of a packing group 1. Based on Figure 8 in Ref.2, the screening distance is approximately 12 m and 20 m from sensitive land uses (including residential) and all other land uses (e.g. commercial or industrial) respectively.	The separation distance between the DG storage to the site boundary is approx. 200 m. Not potentially hazardous.
Environmentally hazardous substance (liquid N.O.S.)	VA 1	Warehouse	3082	9 PG III	1.0m <sup>3</sup>	No threshold identified based on SEPP 33, Ref.2 Class 9 PG III is not classified as potentially hazardous material as per SEPP 33	Not Applicable

Table 12: Potential Hazardous Materials

### 12.3. Management and Mitigation Measures

The report provides conclusions and recommendations for two (2) separate considerations:

#### MHF Considerations and Inclusion of Woodchem in the SSD Application,

Borg Panels and Woodchem operate as two independent business and operating entities and hence the dangerous goods considered in the SEPP 33 review of the Borg development are limited to those present at the Borg facility.

The key points are:

- The sites are operated by separate companies.
- The sites undertake different activities.
- The Project is for the expansion of the Borg facility. As part of this application, it is recognised that any expansion to Woodchem will require a separate application, and that the Woodchem site constitutes an MHF. However, the Borg site does not meet the definition of an MHF and as such no further consideration of the Project as an MHF is required.

#### SEPP 33

The main findings of this SEPP 33 assessment (Section 4.2 and Section 4.4) are summarised below:

- A total of approximately 2 tonnes of Class 3 PG I material (i.e. aviation fuel) will be stored on the site at a distance of approximately 65 m from the site boundary. This is below the SEPP33 separation distance threshold level for 2 tonnes of Class 3 PG I materials.

- A total of approximately 3.1 tonnes of Class 2.1 material (i.e. LPG) will be stored on the site. This is below the SEPP 33 threshold level of 10 tonnes for Class 2.1 materials.
- A total of approximately 27.2 tonnes of combustible material (i.e. diesel) will be stored on the site. Diesel is not stored with other flammable materials, and hence is not considered to be potentially hazardous under SEPP 33.
- A total of approximately 1 tonne of Class 9 PG III material (i.e. environmentally hazardous substance, liquid N.O.S.) will be stored on the site. There is no threshold identified in SEPP 33 for Class 9 materials.
- The operational weekly vehicle movements for hazardous materials are well below the SEPP 33 transport screening threshold levels.
- The drying process is undertaken in a controlled manner with dust extraction, explosion suppression and explosion panels. The site is unlikely to generate a dust explosion causing significant offsite impacts.

Based on these findings:

- The development (accounting for both existing and expansion proposal) is not considered 'potentially hazardous' within the meaning of SEPP 33 and a PHA is not required
- The development is not considered 'potentially hazardous' within the meaning of SEPP 33 with respect to transportation and a route evaluation study is not required.
- The existing site EPL should be reviewed to determine if any updates are required as a result of the expansion.
- Any proposed changes associated with Woodchem will be covered under a separate approval process taking into account the fact Woodchem is an MHF.

Given this, it is considered that no further consideration of the site as an MHF is required. Any changes to Woodchem will be made under separate application, and this will continue to operate as a separate entity, and will be considered as an MHF.

## 13.0 NOISE AND VIBRATION

Global Acoustics were engaged to undertake an assessment of the noise and vibration impacts of the Project. This report is attached as Appendix H.

### 13.1. Existing Environment

The site is currently occupied by an existing timber processing facility. This is subject to a number of licenses, with EPL 3035 being of particular relevance to noise generation.

It is also noted that within the Oberon LEP a buffer area is placed around the OTC Complex. Clause 6.6 states:

*(1) The objectives of this clause are as follows:*

*(a) to protect the operational environment of industries operating within the Oberon Timber Complex,*

*b) to control development near the Oberon Timber Complex and waste disposal facilities to minimise land use conflict.*

*(2) This clause applies to land identified as “Oberon Timber Complex” on the [Industrial Buffer Map](#).*

*(3) Before granting development consent to development on land to which this clause applies, the consent authority must consider the following:*

*(a) the impact that any noise, odour or other emissions associated with existing land uses may have on the development,*

*(b) any proposed measures incorporated into the development that limit the impact of such noise and other emissions associated with the existing land use,*

*(c) any opportunities to relocate the development outside the land to which this clause applies,*

*(d) whether the development is likely to adversely affect the operational environment of any existing development on the land to which this clause applies.*

The clause objectives clearly identify that there is recognition of the ongoing importance and role of the OTC within the region. It requires any new development located within the buffer zone to be designed and constructed in such a way so as to minimise the impacts from the ongoing operations of the OTC on any new development. This recognises that the OTC is an important part of Oberon, and that any new development needs to be designed around the impacts.

The Project is located within this buffer zone, therefore consideration will need to be given to the impacts of the OTC on the Project, even though the Project is part of the wider OTC.

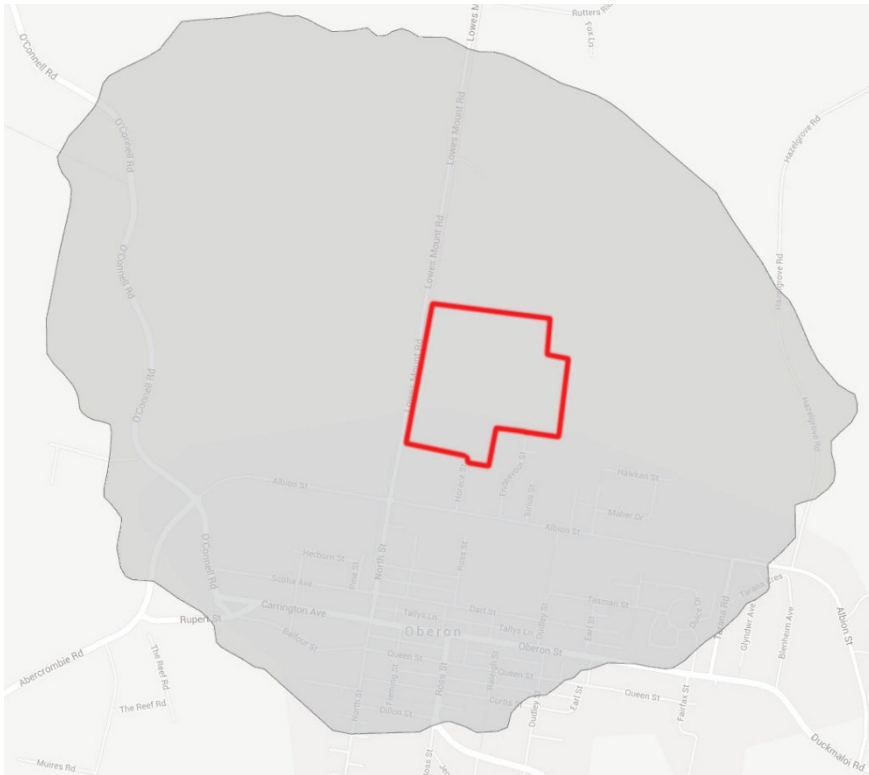


Figure 18: Buffer Zone

Figure 19 below illustrates the site, nearby residences, identified sensitive receptors and noise monitoring equipment locations.



Figure 19: Sensitive Noise Receptors and Monitoring Locations

In regards to existing noise generated by the existing development on site, the facility currently operates under Environment Protection Licence (EPL) 3035. This was varied on 25 February 2015. Condition L4 of the EPL provides noise levels and conditions, which are detailed below.

**L4 Noise limits****L4.1 Noise from the premises must not exceed:**

- a) 55 dB(A)  $L_{Aeq}(15 \text{ minute})$  during the day (7am to 6pm); and
- b) 50 dB(A)  $L_{Aeq}(15 \text{ minute})$  during the evening (6pm to 10pm); and
- c) at all other times 45 dB(A)  $L_{Aeq}(15 \text{ minute})$ , except as expressly provided by this licence.

Where  $L_{Aeq}$  means the equivalent continuous noise level – the level of noise equivalent to the energy-average of noise levels occurring over a measurement period.

**L4.2** To determine compliance with condition L4.1, noise must be measured or computed at for at Oberon High School or an 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 "Environmental Noise Management - NSW Industrial Noise Policy (January 2000)".

**L4.3** The noise emission limits identified in this licence apply under all meteorological conditions except:  
 a) during rain and wind speeds (at 10m height) greater than 3m/s; and  
 b) under "non-significant weather conditions".

Note Field meteorological indicators for non-significant weather conditions are described in the NSW Industrial Noise Policy, Chapter 5 and Appendix E in relation to wind and temperature inversions.

## 13.2. Potential Impacts

The potential noise and vibration impacts from the Project need to be considered in a number of separate but interrelated ways. These are:

- Construction Noise.
- Traffic Noise.
- Operational Noise.

### Construction Noise

It is anticipated that construction will occur concurrently with the ongoing operation of the site. As such, the noise from construction activities will generally be interwoven with the noise from the operations of the site.

It is proposed to generally restrict all site noise emissions so that they comply with the day period operational noise criterion of  $L_{Aeq,15\text{minute}}$  55 dB and the evening period operational noise criterion of  $L_{Aeq,15\text{minute}}$  50 dB, conditioned in EPL 3035. However, there will be times at which this will need to be varied. This will be during short duration high noise emitting tasks as such as rock/concrete breaking, for which the "highly noise affected" construction noise criterion of  $L_{Aeq,15\text{minute}}$  75 dB is deemed appropriate. Such construction tasks are to be undertaken at the least noise sensitive times of day. It is recommended all potentially affected receivers are notified in advance of any construction tasks where the operational day period criterion is likely to be exceeded.

### Traffic Noise

It is anticipated that the traffic noise increase generated by the project will be less than 2 dB. An increase of up to 2 dB is considered to be generally imperceptible to the human ear. As such, no mitigation measures are proposed to minimise traffic noise.

### Operational Noise

The main potential area of impact on the amenity of the surrounding area is from an increase in the noise levels being generated by the site. The modelling carried out by Global Acoustics indicates that the site is currently approaching the limits of the existing licence for noise on the site. The proposed additional development, if carried out without the proposed mitigation measures, would increase the noise levels to



above that of the existing licence. The impacts of this would be particularly significant at the Albion St Caravan Park, located adjacent to the existing industrial subdivision to the south of the Project.

### 13.3. Management and Mitigation Measures

The report prepared by Global Acoustics indicates that the existing site currently is operating close to EPL criteria during certain periods of enhancing meteorological conditions. To allow for the additional noise generating activities (i.e. the Project) to be added to the site, a number of noise attenuation measures for the site are required to be carried out. There are as follows:

- The Conti 1 dryer fan. A sound power reduction from LAeq 121 dB to 114 dB or better is required;
- The booster fan drive. A sound power reduction from LAeq 116 dB to 109 dB or better is required

and

- The main fibre transport fan. A sound power reduction from LAeq 110 dB to 104 dB or better is required.

Borg is committed to achieving these reductions to reduce noise emission from the existing operation. This has included re-instating the previous enclosed chipper to reduce the noise impacts from this area of the site.

In general, operation of both the existing site and the proposed expansion are predicted to comply with current EPL operational noise criteria when recommended management strategies are implemented. A minor 1 dB exceedance is predicted at R09 when a mobile chipper is operated during enhancing meteorological conditions. Operation of mobile chippers does not form part of 'normal' operations, as they will typically be only used during breakdown of electric plant. Exceedances can be avoided through monitoring weather and restricting use of mobile chipping plant during periods of meteorological enhancement.

Borg has committed to achieve the required targets for the new plant to be installed.

It is important to note that Cl 6.6 of the LEP is designed to ensure that the operation of the Oberon Timber Complex can be carried out, and that development within the buffer area needs to respect these important operations, rather than minimising the viability of the OTC. As such, as the Project represents a significant investment in a new timber processing facility in the existing boundary of the OTC it is considered that the proposed development is in accordance with Cl. 6.6.



## 14.0 SOIL

### 14.1. Existing Environment

The Project is located on an existing industrial zoned site and has been used for industrial land uses for a significant period of time. Extensive disturbance has occurred across the site, including a former controlled activity on Lot 24 DP 1148073 (124 Lowes Mount Road). The site has been remediated by the previous owner and this remediation was approved by Department of Primary Industries Office of Water on 11 April 2014.

This is shown in Figure 20 below.

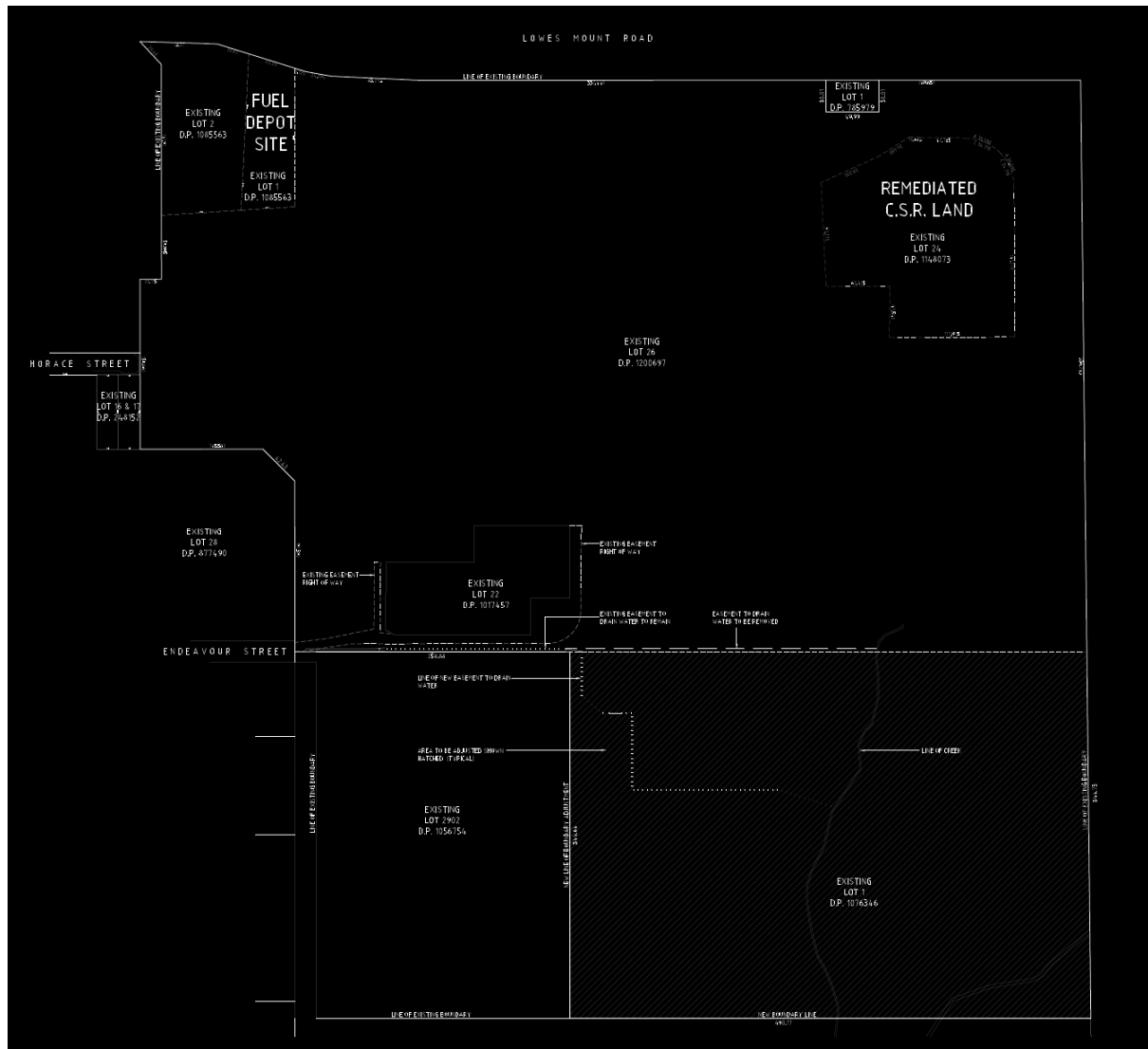


Figure 20: Potentially Contaminated Land

### 14.2. Potential Impacts

The overall potential for impacts upon soil are generally low. The site has been extensively disturbed through ongoing industrial usage. Generally, the impacts from the Project are related to the potential for erosion during construction and the potential for site contamination at the site of the former fuel depot in the south west of the site (Lot 1 DP 1085563).

In regards to the fuel depot, the probability of contamination is considered to be low given that the tanks are located above ground and within concrete bunded areas. This is illustrated in figure 21 below.



Figure 21: Fuel Depot

Irrespective of the above, a thorough assessment of the soils within the affected lot will be undertaken prior to construction.

### 14.3. Management and Mitigation Measures

The majority of the land to be developed represents existing disturbed soil. The majority of the site will be sealed, and disturbance post-construction will generally be low.

The first stage of the Project is the expansion of the existing water treatment ponds and drainage swales. These will capture any loose soil material prior to dispersal into Kings Stockyard Creek. In addition, appropriate erosion and sediment control fencing, in accordance with the Blue Book, will be implemented during the construction phase in order to ensure that impacts are minimised.

There is the potential for some soil contamination at the location of the former fuel depot, fronting Lowes Mount Road. Appropriate remediation to this land to the NEPM standard will be required. This can be conditioned by the Department. Any remediation will need to be to a level suitable for the use of the site for the proposed industrial development.

Negligible impacts on soil are anticipated to occur as a result of the Project. Most activities are to be located on hardstand areas.

## 15.0 WATER

The Sustainability Workshop was engaged by Borg Panels to undertake a Water Cycle Impact Assessment for the Project. This included a thorough review of the existing water cycle on site. This report is attached as Appendix J.

### 15.1. Existing Environment

As the existing approval for the site is tied in to the existing 1995 consent, that includes adjoining properties in the overall Oberon Timber Complex, there is a complex series of inter relationships. The existing stormwater system operates as follows:

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

The existing water treatment regime that operates on site is shown below:

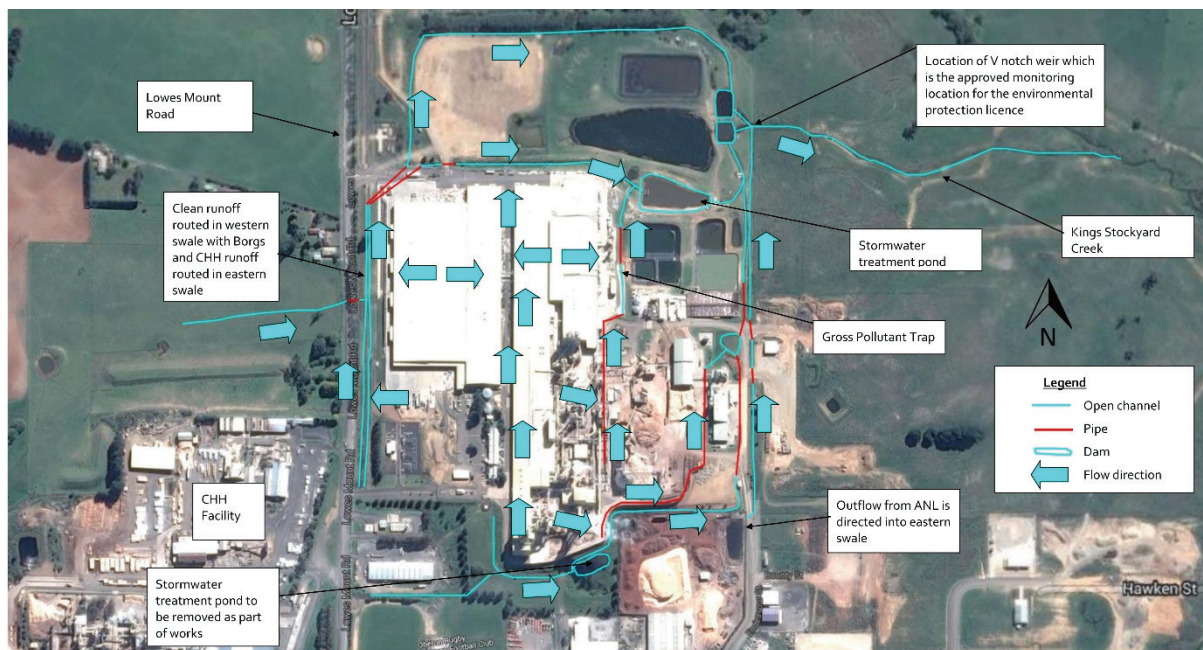


Figure 22: Existing Stormwater Management



In addition to the above, there are a number of existing licenses and approvals in place governing discharge and water usage for the Project.

Pollutant	Permitted Maximum Discharge Concentration (mg/L)
Aldrin and Dieldrin	0.3
BOD	20
Colour (Hazen)	160
Methylene Blue Active substances	0.5
Total Nitrogen (TN)	10
Oil and Grease	10
pH	6.5-8.5
Total Phosphorous (TP)	0.3
Total Suspended Solids (TSS)	50

Table 13: Existing Licence Levels - Water Pollution

All these pollutants are sample either weekly (during discharge) or yearly in accordance with the relevant licence conditions. Of the above, the major pollutants of concern are total suspended solids (TSS), total nutrients (TN) and total phosphorus (TP). The monitoring of Dieldrin and Aldrin are a result of a previous spill on the CHH site, and these are no longer of concern as the affected part of the site has been remediated. This spill occurred during previous ownership, and the contaminated material removed and the creek stabilised.

The following table illustrates the average concentration for TSS, TP and TN for discharge over the site for the years 2010 to 2014.

Pollutant	Average Concentration (mg/L)	Standard Deviation (mg/L)	Permitted Maximum Discharge Concentration (mg/L)
Total Nitrogen (TN)	5.127	8.577	10
Total Phosphorous (TP)	0.155	0.166	0.3
Total Suspended Solids (TSS)	25.08	27.32	50

Table 14: Discharge Levels

These values include run off from surrounding agricultural properties, as well as the CHH facility to the west of the subject site. As discussed above, the existing water treatment process on the Borg Panels site treats this water. The concentrations from the CHH facility are as follows:

Pollutant	Average Concentration (mg/L)
Total Nitrogen (TN)	4.91
Total Phosphorous (TP)	0.215
Total Suspended Solids (TSS)	70.69

Table 15: CHH Concentrations

Overall, the current water treatment system is operating efficiently, and the water being discharged is generally of a higher quality than the water entering the site.

## 15.2. Potential Impacts

The Sustainability Workshop analysed the Project, and identified the following potential impacts. However, overall, the Project is considered to have minimal impacts upon the water cycle. This is predominately

because the proposed process is predominately covered silos, conveyor belts and storage buildings. The existing operations are largely going to be upgraded to a similar standard. In addition, the size of particles for particle board production is generally greater than 1mm. This means that any particles that enter the water cycle can be easily filtered out.

Storage of logs and woodchip may have the potential to create coarse timber particles as well as create the potential for tannin to leach from logs.

It is noted that the additional roof areas as a result of the Project (approximately 1.7ha) may give rise to an increase in TSS, TN and TP in to the water cycle, as rainwater may cause the disturbance of this from impervious roof areas. However, given the more rural location this is considered to be a significantly lesser impact than if the Project was located in Sydney.

There is the potential for an increase in air born particles from the proposed facility. These airborne particles have the potential to enter the water cycle.

The Sustainability Workshop has identified the following as being the key potential impacts on the water cycle from the Project:

- An increase in roof areas
- Storage of logs in log yards
- Handling and transport of woodchip
- Increase in traffic volumes

They have also identified the following key stormwater pollutants:

- Tannins – tannic acid
- TSS, TP and TN.

No works are proposed within 40m of a creek line, so impacts upon Geomorphology are considered to be negligible. Flood modelling was also carried out and no significant impacts upon the existing environment are considered to be likely.

### **15.3. Management and Mitigation Measures**

The Sustainability Workshop has reviewed the plans prepared and has provided the following management and mitigation measures in a number of different sections:

#### **Predicted Water Quality Results**

It is considered that the maximum discharge concentrations will be below current EPL limits. However, should this not be the case after testing, that Borgs will be required to install additional water quality treatment measures. Such measures could include the retrofitting of floating wetlands to the existing ponds, and would further improve the quality of the discharge of water.

It is also recommended that the harvesting of stormwater be investigated. Although there is a strong economic argument for doing so, there is also a positive impact on water quality and geomorphology.

Stormwater harvesting has been included as a key mitigation measure and recommendation for this reason.

#### **Review of the EPL**

The report recommends that the EPA review the existing EPL as follows:

- The location of the approved monitoring point be moved downstream to the location shown in Figure 23. The reason for this is to enable discharge from the proposed new pond to be included

while excluding discharge from the ANL site and Endeavour Road which are not part of the Borgs existing or proposed development.

- It is recommended that it is not feasible to have an EPL with 100% limits and that it would be more appropriate to specify a 95th percentile level of discharge. Knowing that one day it is inevitable that this limit would be exceeded, not due to poor practice by Borgs but because this is what happens in nature. It is unreasonable to impose an absolute maximum 50 mg/L discharge limit on Borgs while numerous other business, residential and industrial developments exceed this limit almost every time it rains. Moreover, it is unreasonable to impose this condition on Borgs on the basis of environmental protection – even fully undeveloped forested catchments have higher maximum levels of TSS concentrations in their runoff from time to time. Infrequent discharges of TSS that exceed 50 mg/L not more often than 5% of the time, i.e. 95th percentile, are not likely to result in degradation or harm to the receiving water. It is recommended that EPL be revised so that the same discharge limits are applied at the 95th percentile level rather than the 100th percentile level.

### **Emergency Spill Control**

It is recommended that the spill control measures shown in Figure 23 are put in place. Noting that the existing aerated small dam (which is no longer required for water quality management) be converted into an emergency spill basin. It shall be operated to ensure there is sufficient spill storage capacity within it. This will require it to be drained by either pumping or gravity together with a system of manually operated diversion valves to isolate the basin if it is needed for spill control. It is recommended that spill control procedures be developed, staff trained and the procedures practiced annually.

### **Geomorphology Impacts**

The proposed harvesting and reuse scheme will see the volume of runoff from the site reduced by about 133 ML/year compared to current levels of discharge. This will see both the frequency and volume of runoff from the site reduced.

### **Water Resources and Licencing**

It is recommended that Borgs be granted dispensation from the *Water Management Act* (2000) for the need to acquire a water access licence to harvest the excessive volumes of runoff generated by this highly impervious site.

### **Soil and Water Management during Construction**

It is recommended that the proposed pond be constructed prior to site stripping and used as a temporary sediment basin and converted to a permanent water quality pond once the site has been effectively sealed. Small scale sediment and erosion control measures would be needed to manage local erosion issues.

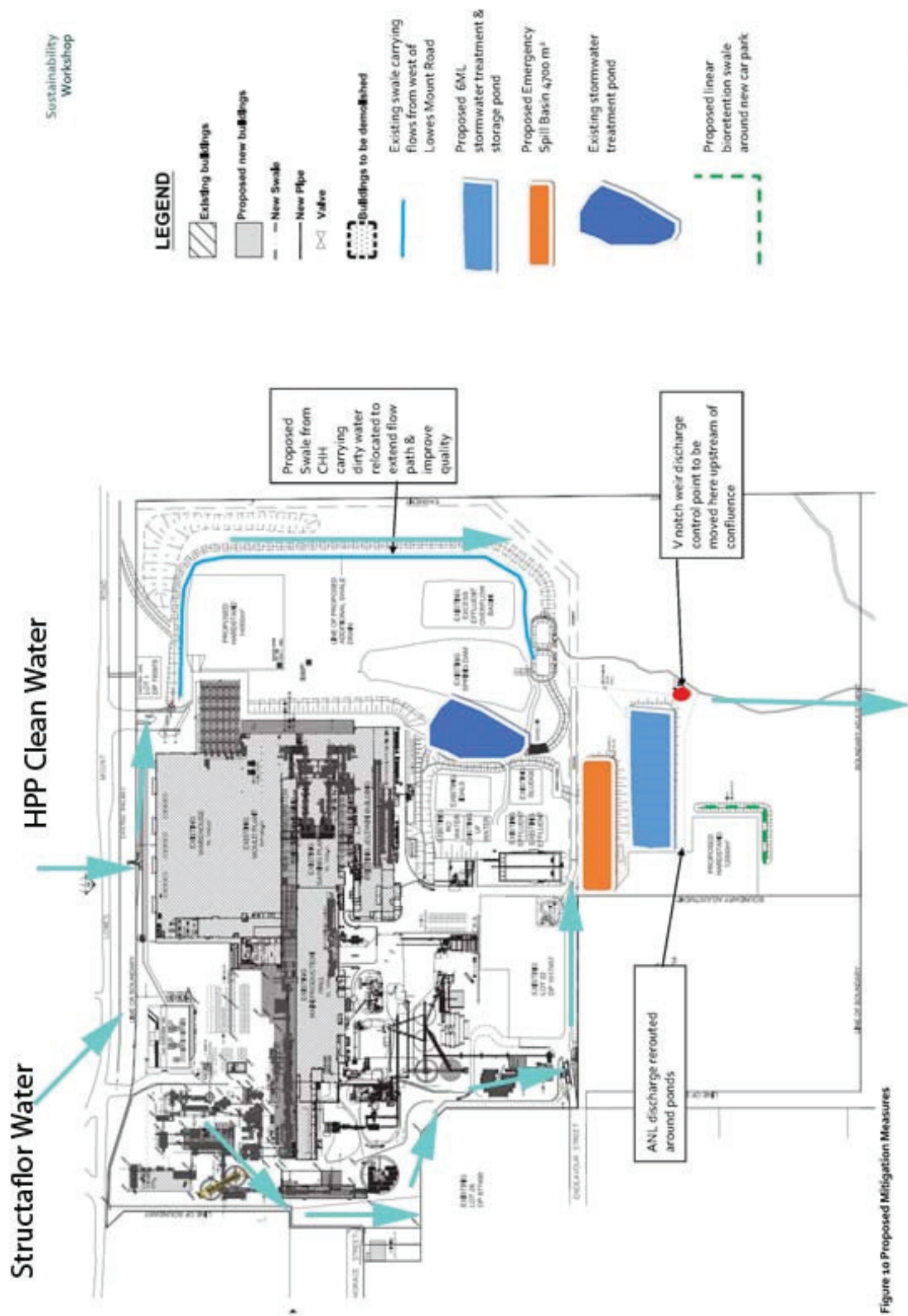


Figure 23: Proposed Water Cycle Mitigation Measures



## 16.0 WASTE

### 16.1. Existing Environment

Existing waste on the site is dealt with in a number of ways. Waste generated by staff and typical operations (such as food scraps, paper, and the like) are processed internally, with the refuse taken to the nearby Oberon Tip by Borg staff. Most materials are recycled on site where possible (such as excess timber product), and agreements are in place with both Oberon and Bathurst Council as well as independent contractors for dealing with waste which is not able to be recycled on site, such as brine and used oils.

### 16.2. Potential Impacts

The following table illustrates the current and proposed annual levels of waste generation as a result of the Project.

Operational Waste	ON Site Disposal (Existing) (m <sup>3</sup> )	ON Site Disposal (Proposed) (m <sup>3</sup> )	OFF Site Disposal (Existing) (m <sup>3</sup> )	OFF Site Disposal (Proposed) (m <sup>3</sup> )	Disposal Method	Provider
Waste Virgin Wood	26,176	26,176	N/A	N/A	Fuel for heat plant	Onsite
Oils			20	20	Recycling	Western Oil
Downgrade Product	6,600	6,600	N/A	N/A	Fuel for heat plant	Onsite
Process Waste Water	1,500	1,500	N/A	N/A	Recycled on site	Onsite
Bottom Ash	N/A	N/A	2,500	2,500	Land fill (alternative disposal methods being researched)	Oberon Council Waste Facility
Process wood dust	2,000	5,000	N/A	N/A	Used for combustion in furnaces	Onsite
WESP Sludge	N/A	2,000	N/A	N/A	Used for fuel	To be used in grate fired heat plants
Bark from log processing	21,748	43,496	N/A	N/A	On sold or used for heat plant fuel	Sale or onsite
Spadeable Resin	N/A	N/A	10	10	Transported to Waste facility with leachate pits	Bathurst Tip
Raw Effluent (Squeeze Out)	50,000	50,000	N/A	N/A	Recycled on site through water treatment plant	Onsite
Brine	N/A	N/A	30,690	46,500	Trade Waste	Existing

						Trade Waste agreement with Oberon Council
Large offcuts (ex chipper and CTS Saw)	8,500	2,000	N/A	N/A	Fuel for grate burners	Onsite
Condensate (from steam)	N/A	N/A	6,600	6,600	Trade Waste	Existing Trade Waste agreement with Oberon Council
Boiler Blowdown HPP	N/A	N/A	6,600	6,600	Trade Waste	Existing Trade Waste agreement with Oberon Council
Scrubber Waste Water	N/A	32,000	N/A	N/A	Water Treatment Plant – Biological reduction	Onsite
WESP Waste Water	N/A	96,000L	N/A	N/A	Water Treatment Plant – Biological reduction	Onsite

Table 16: Waste Generation

### 16.3. Management and Mitigation Measures

One of the key aspects of the Project is the implementation of a revised plant to allow for the burning of gas products on site to generate heat and power. This significantly reduces the amount of electricity required by the plant, as well as the amount of waste product generated. As a result, much of the waste generated in the manufacture of both MDF and Particle Board will be re-used on site. As detailed in the GHG assessment, this generates significantly lower levels of GHG than utilising existing supplied utilities such as gas and electricity. This policy of re-use on site is an integral part of the Project, and minimises overall cost on-site, minimises the demand on external suppliers, creates a far more competitive and renewable operation and significantly reduces the overall amount of waste generated by the development.

As a result of these holistic mitigation measures to be implemented, the Project will create significantly lower levels of waste than a similar, traditionally operated wood processing facility. This reduces both the amount of waste generated (by-products are re-used for heating and power rather than disposed of) and the amount of GHG produced.

## 17.0 GREENHOUSE GAS EMISSIONS

Northmore Gordon was engaged by Borg Panels to undertake a Greenhouse Gas Assessment for the Project. This included a thorough review of the existing water cycle on site. This report is attached as Appendix K.

### 17.1. Existing Environment

The current operations of the site include older style technology, which uses significantly more energy for production than current technology. As part of the Project, an overall upgrade of the site is to be undertaken, including retrofitting more modern power generating equipment. The current levels of energy used by the plant is 1,167,402 GJ/annum. This is made up of gas, biomass, diesel (used for transport) and electricity. This equates to 94,111 Tonnes CO<sub>2</sub>e/annum.

### 17.2. Potential Impacts

The following table compares the emissions of the existing plant to the Project. The output of the Project is being designed at 500,000m<sup>3</sup> p.a. whereas the existing plant is rated at 280,000m<sup>3</sup> p.a. When comparing two modern manufacturing processes, particleboard plant is about 30-35% more efficient to make than MDF on a GJ/m<sup>3</sup> basis. This assessment estimates that the new plant will increase capacity by 182%, and energy use per m<sup>3</sup> by only 67%. The significant improvement in energy efficiency is due to:

- The new plant is able to leverage of some existing infrastructure, and
- The existing plant is not considered energy efficient at this point in time. But is undergoing changes to improve energy efficiency.

Item	Old plant	New plant
<b>Production</b>	220,000 m <sup>3</sup> /annum	Additional 500,000 m <sup>3</sup> /annum
<b>Scope 1 – Gas</b>	211,718 GJ/annum 10,840 Tonnes CO <sub>2</sub> e/annum	313,339 GJ/annum 16,146 Tonnes CO <sub>2</sub> e/annum
<b>Scope 1 – Biomass (mix of green and air dried wood)</b>	45,566 tonnes 606,422 GJ/annum 776 Tonnes CO <sub>2</sub> e/annum	117,692 tonnes 1,224,000 GJ/annum 1,591 tonnes CO <sub>2</sub> e/annum
<b>Scope 1 – Diesel for transport</b>	86 kL/annum 3,320 GJ/annum 233 Tonnes CO <sub>2</sub> e/annum	185 kL/annum 7,151 GJ/annum 500 Tonnes CO <sub>2</sub> e/annum
<b>Scope 2 – Electricity</b>	96,095 MWh/annum 82,262 Tonnes CO <sub>2</sub> e/annum	81,470 MWh/annum 68,435 Tonnes CO <sub>2</sub> e/annum
<b>TOTAL Energy</b>	<b>1,167,402 GJ/annum</b>	<b>1,837,782 GJ/annum</b>

Table 17: Current and proposed GHG Emissions

The majority of the additional energy usage is for diesel to transport the additional production. There is no other option for removing the product from the area. However, this is offset by the significant reduction in

overall fossil fuel powered electricity consumption, replaced by the onsite recycling of what would otherwise be a waste product through the biomass process. Although this does produce GHG, it is at a significantly lower level than the GHG produced by burning fossil fuels.

Total Scope 1 and 2 GHG emissions are estimated to be as follows.

Source	Quantity per annum	Quantity per annum (GJ/annum)	Annual GHG emissions (Tonnes CO2e/annum)
Scope 1 – Gas	313,339 GJ/annum	313,339	16,146
Scope 1 – Biomass	117,692 tonnes	1,224,000	1,591
Scope 1 – Diesel for transport	185 kL/annum	7,151	500
Scope 2 – Electricity	81,470 MWh/annum	293,292	68,435
<b>TOTAL</b>		<b>1,837,782</b>	<b>86,672</b>

Table 18: Total Scope 1 and 2 GHG Emissions

The relationship between GHG concentration and climate change is a very complex and nonlinear one. As such, the direct effect of the emission of this amount of GHGs on the environment, or on climate change, cannot be estimated. The Project represents a minor source of GHG emissions, both in terms of the industrial/manufacturing sector emissions and in terms of the national emissions of Australia. As such, the GHG emissions associated with the Project are not expected to significantly impact upon the environment, and the overall amount of emissions produced have been significantly reduced through the proposed mitigation measures detailed below.

### 17.3. Management and Mitigation Measures

The following mitigation measures have been identified as being appropriate, and have been implemented in to the design. These all reduce the overall levels of GHG produced by the Project.

- Installation of a 50 MWth biomass heat plant to produce hot air for the flake drying process. This significantly reduces the potential GHG emissions from using fossil fuel for this process, and also utilises a by-product of the production of MDF and particle board.
- A small 8MW oil heater operating with combustion air preheating operating on gas will be used to generate hot oil for the press and other plant and equipment.
- Variable speed drives on fans and pumps to reduce overall electricity demand.
- Extensive use of a SCADA system and sub-metering to assist in monitoring plant performance, provide feedback and improve plant control, allowing for ongoing monitoring and improvement in plant performance.
- Electric chippers have a higher overall efficiency and lower noise compared with diesel chippers when analysed over the full and part load operating cycles, and have been implemented in the Project.

## 18.0 VISUAL IMPACTS

A Visual Impact Assessment has been carried out by The Design Partnership. This report is attached as Appendix L

### 18.1. Existing Environment

There are significant existing visual impacts on the area from the operations and infrastructure of the Oberon Timber Complex – both the site operated by Borg Panels as well as other facilities associated with the complex but un-associated with the Project. One of the key visual impacts is the existing chimneys and smoke on site. These are visible through the immediate and surrounding area.

As a result of this, the Visual Impact Assessment has concentrated on the anticipated impacts of the Project, rather than assessing the existing impacts from the wider Oberon Timber Complex.

The viewshed for the existing facility is shown below as Figure 24. This illustrates the potential areas in which the facility can currently be viewed, but does not take into account vegetation or existing buildings.

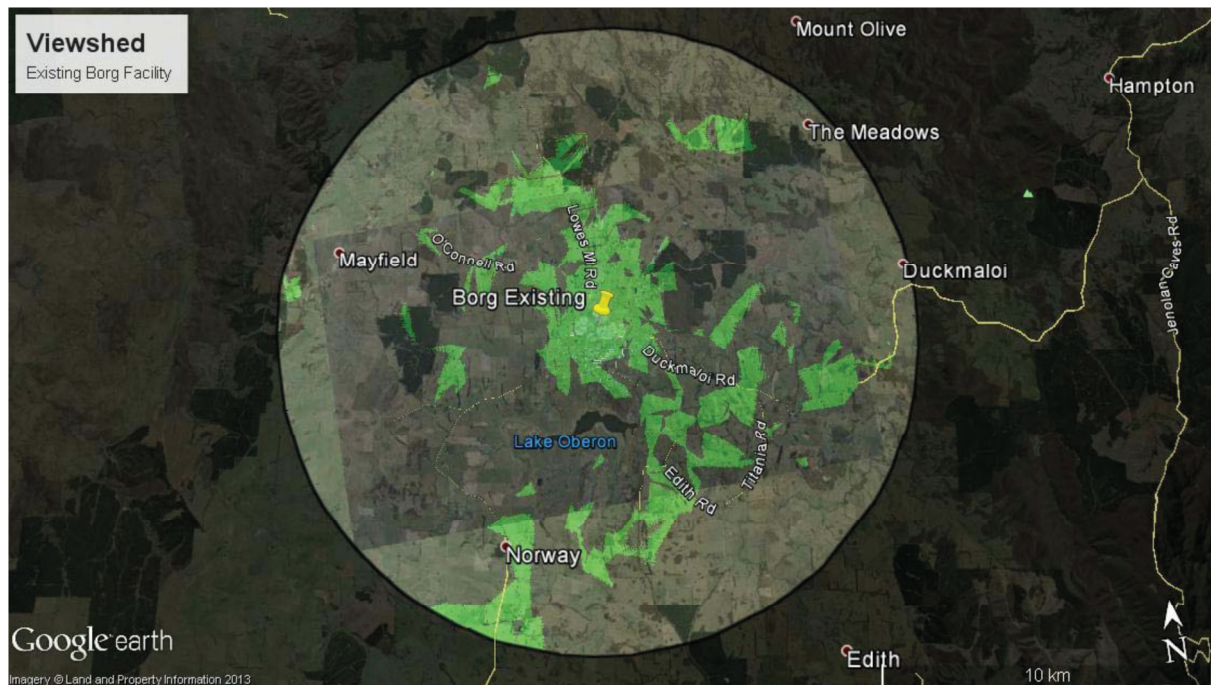


Figure 24: Viewshed

As a result, the viewshed was ground truthed to establish whether or not the site was visible from these areas. This led to the establishment of Viewshed Limits (Figure 25) and viewpoints (Figure 26)



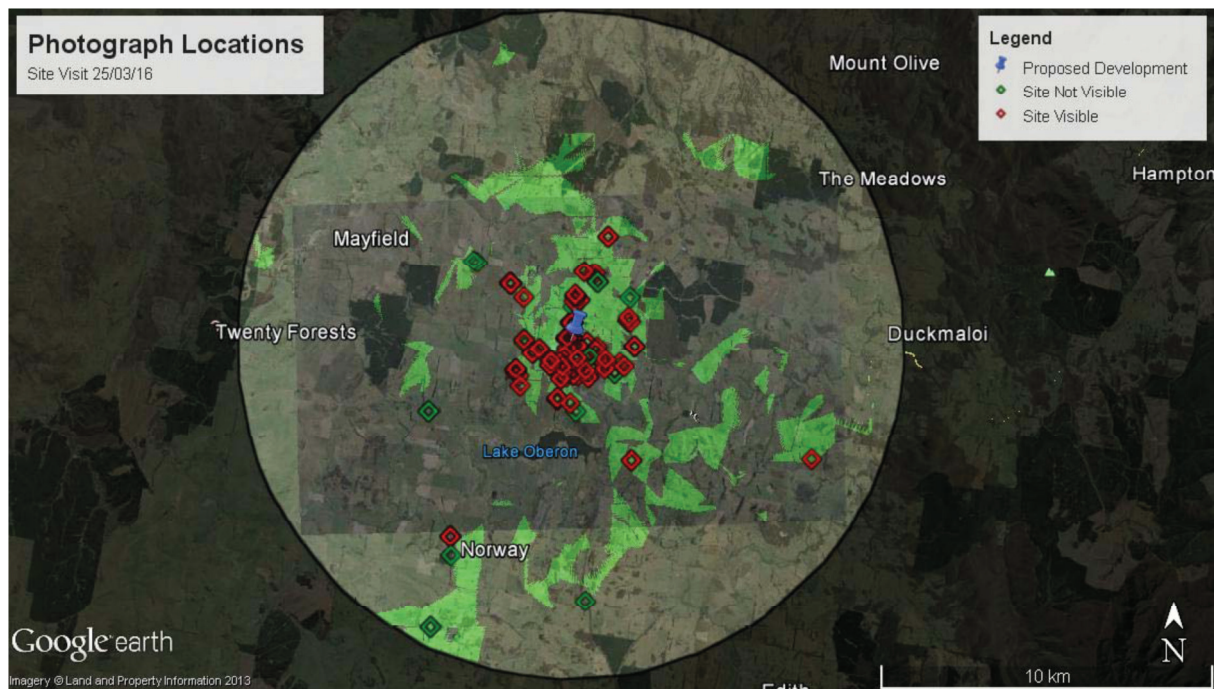


Figure 25: Location of Photographs for VIA

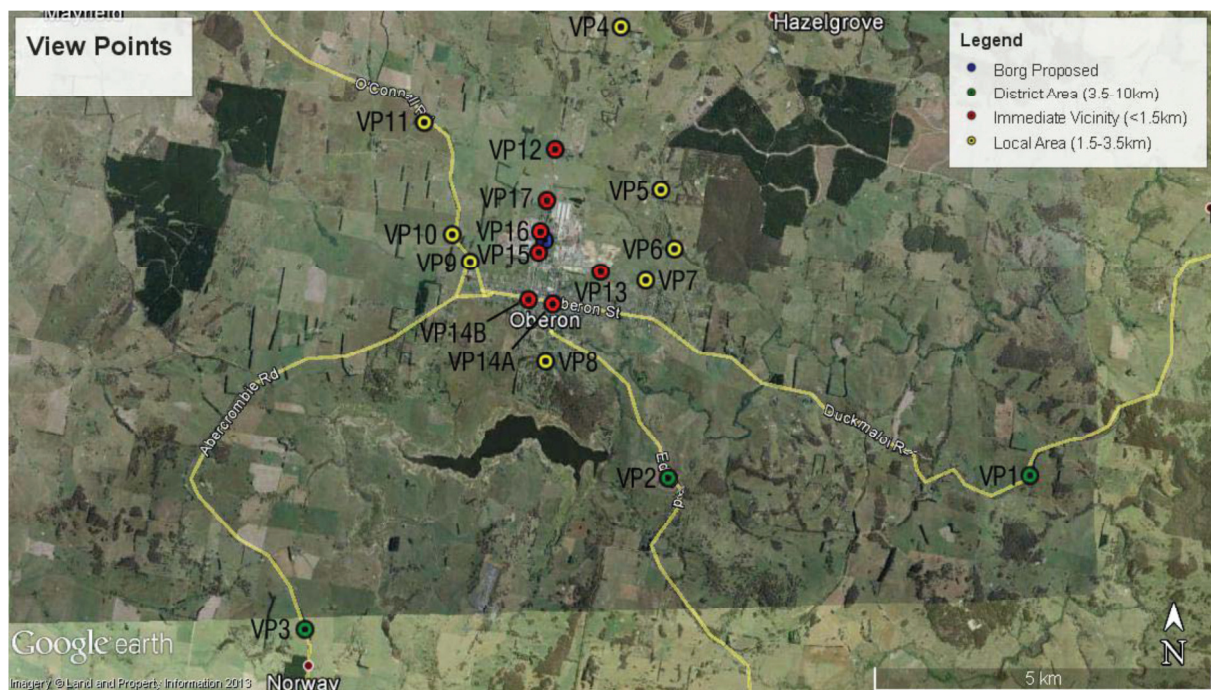


Figure 26: Identified View Points

## 18.2. Potential Impacts

In order to assess the potential visual impact of the Project, the following methodology was used:

- Describe the location
- Define the project
- Assess the landscape context
- Identify, document and analyse the visual character of the surrounding landscape



- Identify and assess the potential View Points at which the proposed impact may have a visual impact
- Assess the visibility of the site from each View Point
- Assess the Visual Absorption Capacity (VAC) of the site and project
- Calculate the Visual Impact Rating (VIR) and identify potential adverse and positive visual impacts; and
- Recommend mitigation measures where appropriate, which may include:
  - Siting, scale, footprint, form and materials options; and
  - Vegetation alteration.

As part of this, a site inspection was undertaken which included travelling to the identified view shed and viewpoints to analyse potential impacts and ascertain current levels of visual interference. The topography, vegetation, and existing development of the area largely mitigates the impacts of the proposed development. Although it will be visible, it does not represent the significant intensification of visual impacts, and tends to be absorbed by the surrounding landscapes. Overall, the Project was determined to have a LOW visual impact rating.

The site when viewed from Key View Points are shown below:



*Figure 27: Abercrombie/O'Connell/Albion Roads Intersection*



*Figure 28: Oberon St/North St Junction*



*Figure 29: Ross St near Oberon Golf Club*





*Figure 30: Oberon St/Ross St Junction*



*Figure 31: Albion St/Tarana St Junction*

### 18.3. Management and Mitigation Measures

The Project is located within a highly industrialised context. The wider Oberon Timber Complex has been an integral part of Oberon for many years. As such, the existing infrastructure has been a visible part of the Oberon skyline for many years. Large industrial buildings and chimneys are one of the key visual features. As a result,

Given the above, the Project is considered to have an overall low impact on the visual character of the area, and this can be further mitigated through the following mitigation measures:

#### LANDSCAPING

1. Provide screening vegetation where possible along the boundary and/or around the new warehouse in the northern part of the site.
2. Provide screening vegetation along the western boundary of the site in the south-west corner to screen new development when viewed from the road. The aim should be to replicate the effect of the existing screen planting along Lowes Mount Road.
3. Add screening vegetation along the southern boundary of the site in the south-west corner to match existing landscaping. The aim should be to replicate the effect of the existing screen planting which screens the existing facility from view.

#### MATERIALS AND COLOURS

For the proposed buildings within the Project Area select:

4. Facade materials that are of low reflectivity.
5. A colour palette that matches the existing development. This will enable the built form to blend in with its landscape context and reduce its visibility from View Points with a medium and long distance of view, such as VP2 and VP9.

#### VISUAL INTEREST

6. Provide an entry feature at the southern entrance on Lowes Mount Road (Gate 4). This could be a landscape statement, a signage element or a public art element. This feature should provide visual interest in the landscape and enhance views along Lowes Mount Road (VP16).

#### LIGHTING

7. The facility operates twenty hour hours per day. Lighting must be designed to minimise impacts on surrounding residential development and local roads. Recommended mitigation measures are:

- only lighting required spaces within the Project Area;
- focusing lights down, not up or out;
- providing minimum lux levels to achieve the desired outcomes of safety and security;
- minimising reflective material throughout the Project Area.

## 19.0 SOCIAL AND ECONOMIC

### 19.1. Existing Environment

The current operations of Borg Panels, along with other operations within the Oberon Timber Complex and the wider forestry/timber industry are one of the major employers within the Oberon region; in the 2011 census, the combined total of those employed in “Other Product Manufacturing”, “Log Sawmilling and Timber Dressing” and “Forestry and Logging” represented a total of 15.6% of employment in the Oberon Local Government Area. This does not include those who live outside of the immediate Oberon Local Government Area, such as in the Lithgow or Bathurst Local Government Areas.

This high level of employment in these industries results in an overall low rate of unemployment in the Oberon LGA; in the 2011 Census, the overall unemployment rate in Oberon was 4.8%, below the state-wide average of 5.9% and the Australia-wide average of 5.6%.

This does not take in to account the beneficial flow on effects and increase in discretionary spending in the area.

### 19.2. Potential Impacts

The expansion of the operations will see an increase in the workforce, both during construction and during operation of the expanded facility. The estimated increase in employment is approximately 760 during construction and 70-80 during operations. It is noted that not all of the employment during construction will be located within Oberon. As Borg Panels manufactures a large amount of the physical infrastructure themselves, some of these jobs will be located on the NSW Central Coast. However, this is only a small component of the overall job creation from the Project.

Oberon is largely a timber town, with milling, forestry and wood processing being the major employers in the region. Expanding these operations will seek to further increase the levels of employment

### 19.3. Management and Mitigation Measures

Given the positive impacts on local employment levels, and the resultant positive social impacts from the Project, no management or mitigation measures are proposed to be undertaken.

## 20.0 ECOLOGY

Peak Land Managed was engaged by Borg Panels to undertake a Biodiversity Assessment for the Project. This report is attached as Appendix M.

### 20.1. Existing Environment

The Project is located on existing industrial zoned land. There is significant disturbance and development over the site.

Despite the limited areas of vegetation on the Project site, an ecological assessment was undertaken as part of this EIS. This report concluded that the Project site is severely disturbed, with most native vegetation under and around the existing facility being cleared, and exotics or planted species occurring around the northern, western and parts of the eastern sides of the site.

The proposed areas of expansion occur primarily over disturbed land with no native species present, being formerly levelled/modified. The remainder of the hardstand, emergency & first flush basins are located over modified native Grassland. This is shown in Figure 32 below.



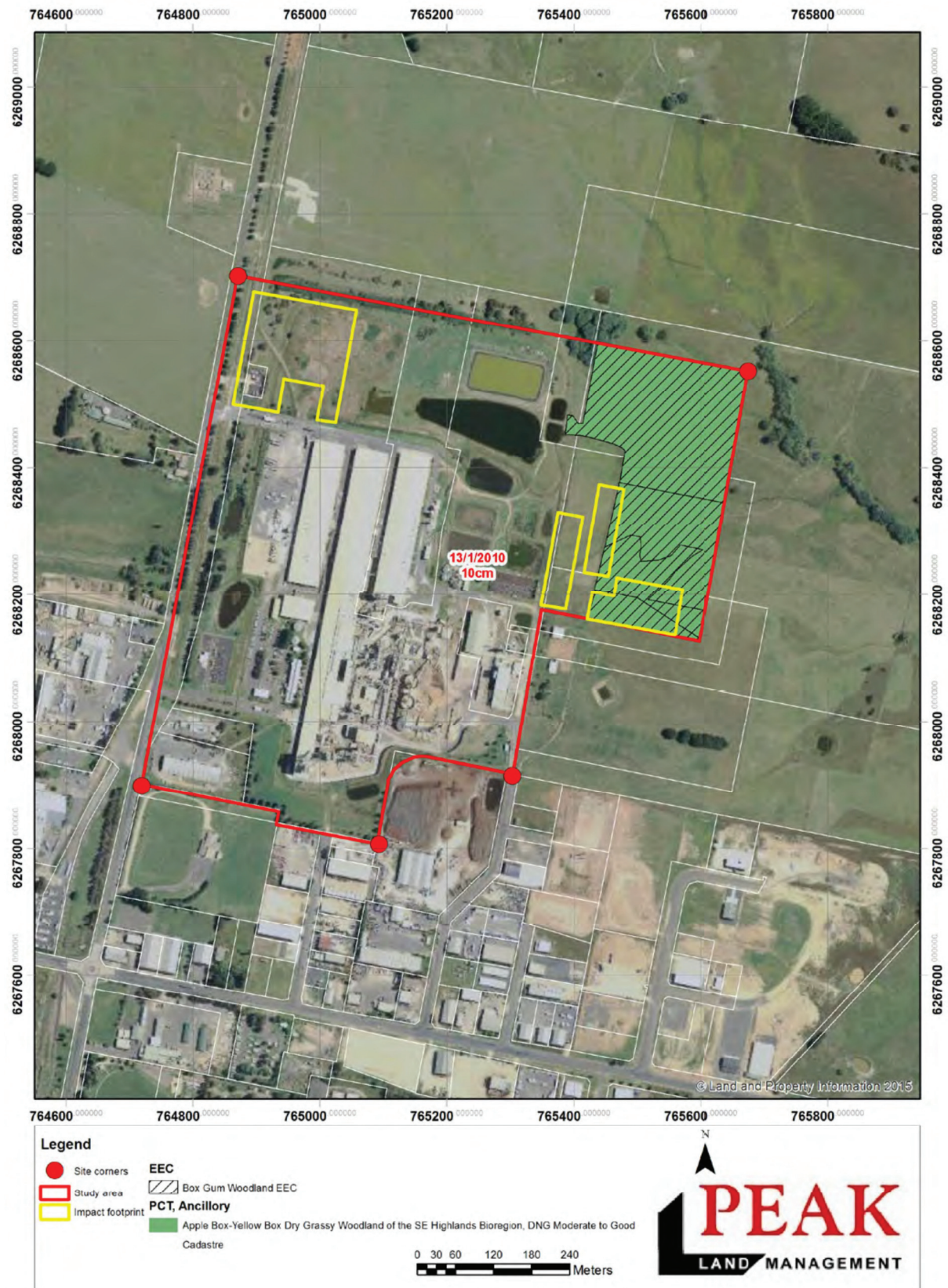


Figure 32: Development Footprint and Vegetation Map

## 20.2. Potential Impacts

The Project is located on land that has been used for either industrial or agricultural purposes for a long period of time. As such, much of the area has been extensively cleared.

The Ecological assessment undertaken by Peak Land Management for the Project concluded that no significant impacts were anticipated to occur. The overall impacts were assessed to be 10.42 for the development site and 0 for the future site. Under the Framework for Biodiversity Assessment (FBA) any result under 17 does not require further assessment.

## 20.3. Management and Mitigation Measures

Given the largely cleared nature of the site, there being no endangered ecological communities nor species found on site, and the majority of construction being located within an existing disturbed area, no negative ecological impacts are anticipated to occur as a result of the Project. The following recommendations were included within the Peak Land Management Report for further consideration:

- Implement standard erosion and sediment control measures over the development site whilst construction works are underway as part of CEMP.
- Retain all remaining native vegetation within proposed development site where feasible.
- Noxious weeds should be controlled/eradicated where feasible.
- Consider native revegetation within development site with endemic native species.
- Develop and implement a Vegetation Management Plan for the development site.

It is noted that the Office of Environment and Heritage has approved this report and does not require any further information regarding the Project. As such, it is considered that the proposed development will have no negative impact on the flora and fauna of the site, and no further consideration of this item is required.



## 21.0 INDIGENOUS HERITAGE

### 21.1. Existing Conditions

A search of the Office of Environment and Heritage Aboriginal Heritage Information Management System (AHIMS)) database was carried out on 12 May 2015 during the preparation of this EIS. The subject site was identified via Latitude and Longitude, and a 200m buffer zone identified.

The AHIMS search found 4 Aboriginal Sites were recorded in or around the location, and 0 Aboriginal Places were identified.

As a result, a more detailed search was requested. This provided the eastings and northings that mapped these locations. This is shown in Figure 33 below



Figure 33: Aboriginal Artefact Location

The reports that these items were recorded in were requested from the Office of Environment and Heritage. These artefacts were recorded in a 1986 archaeological survey, carried out by Brayshaw and Associates, undertaken prior to the construction of the existing facility on site.

This survey was carried out over a large area of the site. Four (4) scattered artefacts were identified on site during the survey. The Brayshaw and Associates report concluded that:

*In view of the disturbance sustained to the area, the apparent sparseness of the artefacts, and the clay deposit which would make excavation and accurate provenance extremely difficult, excavation of the area is not appropriate.*

The land to which this application applies has been extensively disturbed by both agricultural and industrial activities, land uses which were identified in the 1986 report as significantly decreasing the likelihood of any artefacts or items of cultural heritage being located on site.

No other locations were identified through the AHIMS search within 200m of the property boundary.

The detailed results of this search are shown in Appendix N

## **21.2. Potential Impacts**

Given the scattered artefacts previously identified on site, and the extensive disturbance on the site, it is considered that the site has a general low sensitivity in terms of Aboriginal site location, and as such the Project is not anticipated to have any significant impacts in terms of Aboriginal heritage significance.

## **21.3. Management and Mitigation Measures**

Given the scattered nature of artefacts identified during the previous study carried out, the soil type and general topography of the site and the conclusions of that report, no further studies are considered to be necessary. However, if any indigenous artefacts are uncovered during earthworks, then work will be stopped, and a suitable representative from the indigenous community contacted. Works would only recommence when an appropriate and approved management strategy has been agreed to by all of the relevant stakeholders.

## 22.0 EUROPEAN HERITAGE

### 22.1. Existing Conditions

No heritage items are located within close proximity to the Project; the closest being the Oberon Station Precinct, which is approximately 500m from the site. These are located at Lot 2 DP DP875942, 1 Herborn St, Oberon.

The Oberon Station Precinct is a State Heritage Item, and includes the Oberon Railway Stockyard, a separately listed item. The NSW Heritage database entry for the Station Precinct is as follows:

The railway precinct at Oberon includes a good example of a precast concrete station building, timber faced platform, and a stockyard. The stockyard is a good, intact, representative and accessible example of a T5 (type 5) railway stockyard. The stockyard features a complex arrangement of cattle races for sheep and cattle, unloading areas and facilities for stock handlers. The trucking race/unloading ramp is an unusual example of its type and includes an upper sheep race and a cattle race.

The entry for the Railway Stockyard is as follows:

*The stockyard at Oberon is a good, intact, representative and accessible example of a T5 railway stockyard. The stockyard features a complex arrangement of cattle races for sheep and cattle, unloading area(s) and facilities for stock handlers. The unloading ramp (added c1960s) is an unusual example of its type and includes an upper sheep race and a cattle race. The stockyard can be accessed via a cycle/walking trail and has good potential for further interpretation*

The description for the Station Precinct is as follows:

*Extant items at Oberon include the precast concrete station building, WC, lamp room, timber platform face, station signs (all of which date from 1923), and stockyard.*

*The T5 (type 5) stockyard at Oberon is principally of timber construction and is similar to the c1912 Nimmitabel stockyard. The most prominent feature is the long and complex series of stock races and the unloading area facing the track. It includes an upper sheep race with room for stock handlers, a low sheep race, cattle race, one or two unloading areas, room for stock handlers, and a series of associated gates. The main perimeter fences at the front section of the stockyard consist of timber posts with five timber rails. The rear section (near the trucking race) consists of metal posts and five timber rails. The trucking race/unloading ramp is unusual having both an elevated sheep race and a separate cattle race. The stockyard features several timber arches, metal gates, and some narrow refuges.*

The description for the Railway Stockyard is as follows:

*The T5 (Type 5) stockyard at Oberon is principally of timber construction. The most prominent feature is the long and complex series of stock races and the unloading area facing the track. It includes an upper sheep race with a working platform for stock handlers, a lower sheep race, cattle race, one or two unloading areas, additional room for stock handlers, and a series of associated gates. The main perimeter fences at the front section of the stockyard consist of timber posts with five timber rails. The rear section (near unloading ramp) consists of metal posts with five timber rails. The unloading ramp is unusual having both an elevated sheep race and a separate cattle race. The stockyard features several timber arches, metal gates, and refuges (narrow gates). The stockyard is currently being conserved by Oberon Tarana Heritage Railway Inc. (OTHR).*

No other items of European Heritage are located in proximity to the Project. The only other heritage item within Oberon is the Malachi Gilmore Memorial Hall, located in the centre of Oberon. See Figure 34 below.



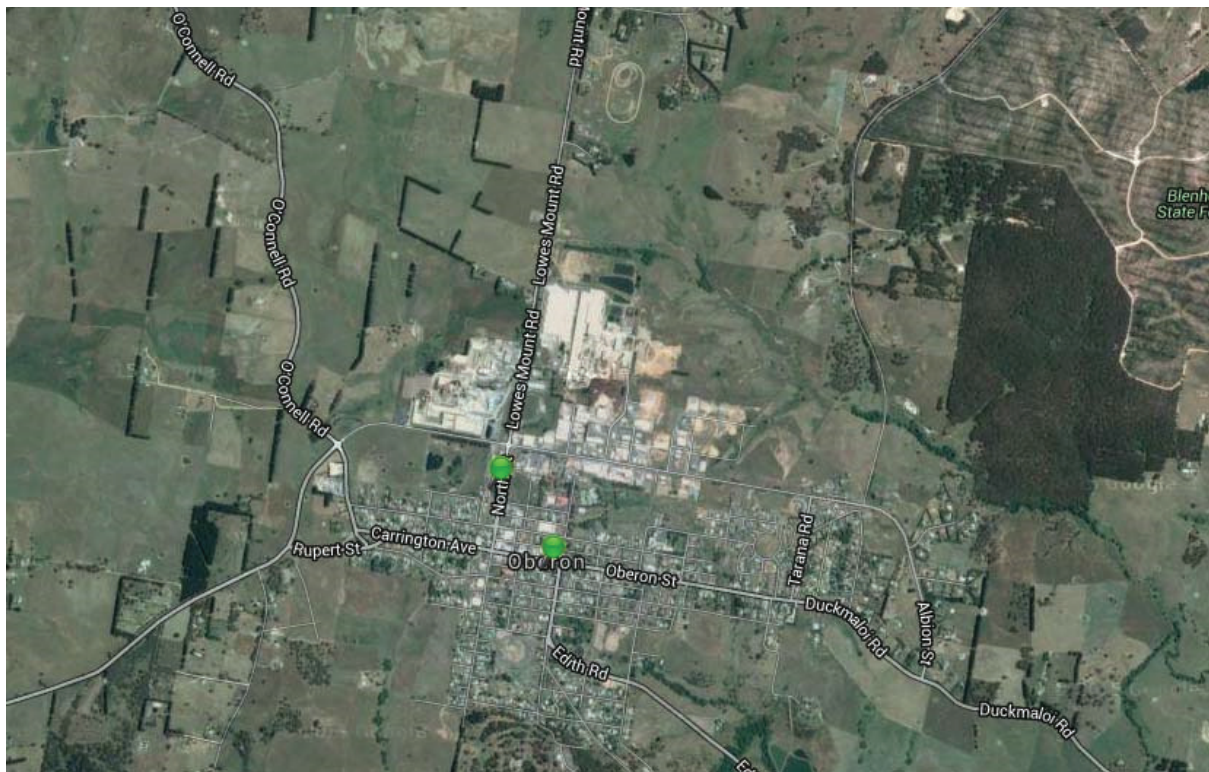


Figure 34: Heritage Items

## 22.2. Potential Impacts

Given the distance between the Project and the items (a minimum of approximately 300metres) and the other development located between the Project and the heritage items (being an oval, light industrial development and other components of the wider Oberon Timber Complex (not in Borg Panels ownership) the Project is not considered to have any adverse effect on the heritage significance of the Oberon Station Precinct nor the Oberon Railway Stockyard. The development will not create any additional visual impact from the heritage item over what is currently visible on site.

In addition, an integral part of the heritage of the Oberon Station Precinct is the relationship between the establishment of Oberon and the timber industry, whether it be logging or the production of timber products. As such, the Project represents the continuation of the context that surrounds the heritage item.

## 22.3. Management and Mitigation Measures

Given the distance from the site of these items of European heritage, no mitigation measures are considered to be necessary. Existing Oberon Timber Complex activities (not part of the Borg Panels operations) are located on a lot adjoining these items, and although the Project brings the Borg activities closer to the heritage item there is still significant physical separation.



## 23.0 CUMULATIVE IMPACTS

The cumulative impacts can be summarised as follows:

### Negative

#### Green House Gas

The overall proposal, although significantly mitigated through the implementation of onsite bio mass generation, and the gradual movement towards more fuel efficient trucks in the trucking fleet and purely electric forklifts, will have an increase in overall GHG levels. However, in the broader context the Project has been designed to significantly minimise the impacts of GHG, and the overall impact on a broader level is considered to be largely negligible.

#### Visual Amenity

There will be a minor negative impact on the visual amenity of the area. This is heavily mitigated by the existing visual environment; there is very little change on the overall visual amenity of the area, except to the immediate west and south west of the site. This is due to the new works largely integrating with existing industrial developments on the site. All materials will be designed to match the existing development on site, and the noise attenuation walls proposed will also shield potential receptors.

The impacts to the north, east and south are generally minimal, as the Project is generally of a lower height than existing development on site. As such, from these areas the

### Positive

#### Social and Economic

The Project will have a significant economic and social impact upon the immediate Oberon Local Government Area, the wider Orana region, the state of New South Wales and indeed will have a positive economic impact upon the wider Australian economy. By increasing the amount of product manufactured inside Australia, by an Australian owned company, there is a much more positive economic impact than continuing to purchase materials from a mix of local and imported sources.

In addition, the ongoing, permanent, jobs created by the Project will have a significant impact in the immediate area. Oberon currently has an unemployment rate below the national average. However, the wider region is dependent on manufacturing as the main employer. Much of this manufacturing is in mining related industries. The Project represents a more stable employment base, less affected by broad scale global economic movements. The increase in capacity will also result in an increase in the amount of raw plantation timber required. As much of this is sourced from the immediate area this will also increase the economic base of the area.

#### Air Quality

It is noted that there will still be pollution generated by the Project. However, the overall levels of pollution are a significant reduction over the current approved levels on site. In particular, the GLC of formaldehyde is significantly lower than at the current plant. This has been achieved through bringing the existing site up to modern standards, as well as the ensuring that new plant installed meets or exceeds the required standards.

As such, it can be considered that the Project has an overall positive impact upon air quality.

**Neutral**

There are a number of areas in which the Project will have a Neutral impact on surrounding land uses. These are:

**Heritage:**

The existing separation between the site and the closest heritage item will be largely retained, and no additional impacts are to occur as a result of the Project.

The likelihood of Indigenous heritage items being located on the subject site has been assessed to be low, based on previous studies done in the area. As the majority of works are located on existing disturbed and developed areas the overall likelihood of any such item being located is considered to be low.

**Traffic:**

The Project will have no negligible impact on traffic levels within the area. All intersections will still operate well within capacity, and there is scope within the existing road network to accommodate the potential increase in vehicle movements.

**Hazard and Risk:**

The Project is not considered to fall under SEPP 33, and represents the continuation of an existing industrial operation. Although there is an increase in the storage of potentially dangerous goods, modern control technologies for fire and explosion suppression to an international standard has been implemented, meaning that the overall impacts are neutral.

**Soil:**

The site is an existing industrial facility, operating in an appropriate zone. Provided that appropriate erosion and sediment control measures are implemented, then no adverse impacts are anticipated to occur. It is noted that there have been previous site contamination concerns raised over the site, particularly on land in the north. However, this has since been remediated.

There is an existing fuel depot in the south western corner of the site. This land is to be remediated to a level suitable for the proposed industrial use of the site.

**Water:**

The existing approval regime sets out stringent water quality control measures to ensure that the water discharged from the site is treated to an appropriate level. This is not just for the stormwater from the Borg site but the wider Oberon Timber Complex. The Project modifies this approach, utilising stormwater harvesting and storage. This decreases the use of potable water for industrial activities, reduces reliance on Council supplies and improves the overall quality of water discharged from the site.

**Noise**

There has been ongoing concern raised in regards to noise generated at the existing facility, especially from the operators of the caravan park located in close proximity to the subject site. Extensive noise modelling has been undertaken in order to ascertain the impacts, and find ways of minimising those impacts. Without limiting operations on site, the Project could be undertaken without increasing overall noise impacts on the area. However, in order to minimise impacts on surrounding land users, businesses and visitors to the region, a number of noise reduction measures, including limiting the amount of plant operating at any one

time, and enclosing plant in noise attenuating enclosures, have been proposed. This will ensure the ongoing acceptable levels of noise generation will continue, despite the significant increase in plant capacity.

## Overall

Overall, the Project will have some impact upon the immediate area, through additional visual and GHG impacts. The impacts from traditional areas of concern (air and noise), have been significantly minimised where possible, through screening measures, noise enclosures and upgrading of existing and proposed infrastructure to meet current guidelines. In many cases, the completed Project will have a significantly better outcome than the current manufacturing operations on site.

Significant mitigation measures across the site and across these areas of impact have been put in place to ensure that the overall impacts of the Project are low, and that the site activities can be undertaken without creating any additional impacts upon either adjoining properties or the wider area.

Given these mitigation measures, and the significant positive economic and social impact of the plant, it is considered that the overall impacts of the Project are beneficial to Oberon, the larger Orana region and indeed the overall state.

## 24.0 RESIDUAL RISK ANALYSIS

### 24.1. Methodology

This risk analysis for the Project is based on a process adapted from AS/NZS ISO 31000:2009 Risk management – principles and guidelines. The process is qualitative and based on the residual risk matrix shown in Table 18.

Significance	Receiving Environment
Extreme	Undisturbed receiving environment, type or extent of impacts unknown, substantial community concern
High	Sensitive receiving environment, type or extent of impacts not well understood; high level of community concern.
Moderate	Resilient receiving environment, type and extent of impacts understood; community interest
Minor	Disturbed receiving environment; type and extent of impacts well understood; some local community interest.
Low	Degraded receiving environment; type and extent of impacts fully understood; uncontroversial project.

Table 19: Significance of Effects

Residual environmental risk is assessed on the basis of the significance of environmental effects of the Project and the ability to confidently manage those effects to minimise the risk of harm to the environment.

The significance of environmental effects is given a numerical value between one and five, based on:

- The receiving environment (its sensitivity and values);
- The level of understanding of the type and extent of impacts; and
- Likely community response to the environmental consequences of the Project (refer to Table 19).

The manageability of environmental effects is similarly given a numerical value between one and five based on the complexity of mitigation measures, the known level of performance of the safeguards proposed, and the opportunity for adaptive management (refer to Table 9)

Significance	Mitigation Measures
Complex	Complicated array of mitigation measures required; safeguards or technology are unproven; adaptive management inappropriate.
Substantial	Significant mix of mitigation measures required; past performance of safeguards is understood; adaptive management feasible.
Straightforward	Straightforward range of mitigation measures required; past performance of safeguards is understood; adaptive management feasible.
Standard	Simply suite of mitigation measures required; substantial track record of effectiveness of safeguards; adaptive management unlikely to be required
Minimal	Little or no mitigation measures required; safeguards are standard practice; adaptive management not required.

Table 20: Manageability of Effects

Significance of	Manageability of Effects
-----------------	--------------------------

Effects	Minimal	Standard	Straightforward	Substantial	Complex
Low	Low	Low	Low/Medium	Low/Medium	Medium
Minor	Low	Low/Medium	Low/Medium	Medium	High/Medium
Moderate	Low/Medium	Low/Medium	Medium	High/Medium	High/Medium
High	Low/Medium	Medium	High/Medium	High/Medium	High
Extreme	Medium	High/Medium	High/Medium	High	High

Table 21: Risk Rating

## 24.2. Analysis

The analysis of residual environmental risks for issues related to the Project is shown in Table 9.

This analysis indicates the environmental risk profile of the Project based on the assessment of environmental effects, the identification of appropriate mitigation measures and the Summary of Mitigation Measures provided in Section 27 of this EIS.

Issue	Initial Risk Rating – No Mitigation Measures Implemented			Risk Rating – Mitigation Measures in Place
	Significance of Effects	Manageability of Effects	Risk Score	Residual Risk
Traffic	Minor	Minimal	Low	Low
Air Quality	Moderate	Straightforward	Medium	Low/Medium
Hazard and Risk	Low	Minimal	Low	Low
Noise and Vibration	Moderate	Straightforward	Medium	Low/Medium
Soil	Low	Minimal	Low	Low
Water	Minor	Standard	Low/Medium	Low
Waste	Low	Minimal	Low	Low
Greenhouse Gas Emissions	Low	Standard	Low	Low
Visual Impacts	Low	Standard	Low	Low
Social and Economic	Low	Minimal	Low	Low
Ecology	Low	Minimal	Low	Low
Indigenous Heritage	Low	Minimal	Low	Low
European Heritage	Low	Minimal	Low	Low

Table 22: Residual Risk Analysis

## 24.3. Conclusion

The above residual risk analysis indicates that the Project, including appropriate mitigation measures as outlined in this EIS, would give rise to predominately a low to low/medium risk in relation to the identified environmental issues.



## PART H – ENVIRONMENTAL MANAGEMENT AND MONITORING

### 25.0 ENVIRONMENTAL MANAGEMENT

#### 25.1. Environmental Management and Monitoring Plan

Borg panels have a current Environmental Management and Monitoring Plan that applies to the current development on site. This will be updated to reflect the changes under this approval, as well as reflecting any changes to the conditions of consent.

##### 25.1.1. Construction Environmental Management Plan

A Construction Environmental Management Plan will be required to be produced in order to minimise the impacts of the Project. One of the key components of this will be ensuring that all works carried out at an early stage, such as site preparation and grading, is undertaken in accordance with Landcom's *'Blue Book' (Managing Urban Stormwater Soils and Construction)*. Compliance with this industry standard should be conditioned by the Department.

##### 25.1.2. Operational Environmental Management Plan

Borg Panels has an existing environmental management plan which governs the day to day operations of the site, as well as detailing the methodology for dealing with emergency events. This will be updated to reflect the changes in the site. The Water Management Plan prepared for the Project has made a number of recommendations regarding new basins and catchment areas for fire water or for collecting spills. These will be incorporated into this document.

##### 25.1.3. Environmental Auditing and Reporting

Ongoing environmental auditing and reporting is likely to be a condition imposed by the Department. Currently, the requirement is for an Environmental Audit to be carried out every five (5) years. This is considered to be appropriate for the expanded Project. Ongoing discussions with the EPA and the Department will guide the required reporting. Any condition relating to the ongoing auditing and reporting of site activities will be complied with.

## 26.0 SUMMARY OF MITIGATION MEASURES

The following mitigation measures are proposed:

### Traffic and Transport:

- Preparation of a detailed Construction Traffic Management Plan for the construction phase of the development in accordance with Roads and Maritime's Traffic Control at Worksites Manual (version 4.0 June 2010), which specifies:
  - Hours of haulage, which do not impose on peak periods and school drop-off and pickup times
  - Haulage routes, including the source of locations and their access points for the site
  - Designated areas within the site for truck movements, parking, loading and unloading,
  - Sequence for implementing traffic works and traffic management devices if required
  - Safety principles for construction activities, such as speed limits around the site and procedures for specific activities
  - Procedures for inspections and record keeping for maintaining traffic control measures
  - Undertake a pavement inspection pre- and post-construction to ensure the pavement condition has not been further degraded due to construction traffic.

Further to the above, the following mitigation measures may be implemented to monitor and enhance the safety of pedestrian and vehicle movements around the site during operation:

- Appropriate implementation of accessible parking as specified in Sections 5.1.1 and 5.2 of the traffic report and allocation for use by staff and visitors as required.

### Noise

The following management and mitigation techniques are proposed for the existing plant:

- Plant listed in Table 12 (of acoustic report, see below) should be provided with further noise control (attenuation).

The following management measures and mitigation techniques are recommended for the Project:

- Mobile chipping plant should be phased out from permanent use. When required, mobile chipping plant should be restricted to the day period, and should not be operated during periods of meteorological enhancement towards R09;
- No chipping plant should operate during the night period; and
- Plant listed in Table 12 (of acoustic report, see below) should be provided with further noise control (attenuation).

Plant listed in Table 12:

- Conti 1 Drier Fan
- Fibre Transport 1 (230M1)
- Booster Fan Drive

These measures will significantly reduce overall noise generation from the Project.

## Air

The following mitigation measures are to be installed in to the existing MDF plant:

- EPA ID 23 (Paper treater) together with another additional treater (with a total flow rate of 80,000 m<sup>3</sup> per hour), will be diverted to EPA ID 11 (Conti-2 heat plant) where 95% of formaldehyde will be removed before discharge to the atmosphere;
- EPA ID 12-2 (Conti 1 roof vent) will be diverted to EPA ID 17 (Conti-1 heat plant) where 95% of formaldehyde will be removed before discharge to the atmosphere;
- 3. A new 'combined stack' will be installed. This stack is proposed to be 40 metres high, 1.5 metres diameter, with a total flow rate of 100,000 m<sup>3</sup> per hour;
- 4. EPA ID 4 (DC1 baghouse) and EPA ID 5 (DC2 baghouse) will be discharged to the atmosphere through the proposed combined stack;
- A wet scrubber system will be installed on the Conti 2 press line. This system is designed to emit a maximum of 40 mg/m<sup>3</sup> of TSP and 30mg/m<sup>3</sup> of formaldehydes with a total flowrate of 100,000 m<sup>3</sup> per hour, which will be emitted through the combined stack.

The following mitigation measures have been provisioned for the proposed particle board plant to reduce ground level impact:

- E12 will utilise dispersion to reduce impacts.
- Press scrubber does not vent directly to atmosphere as the emissions will be diverted to the Combustion chamber and excess gas will be emitted via the WESP stack.
- Wet Electrostatic Precipitator will be used as particulate control for moisture laden air from dryer.
- Low NO<sub>x</sub> burner will be used for dryer Hot gas generator.
- Baghouses and cyclofilters will be installed on all other material transport and process applications.

## Flora and Fauna

- Implement standard erosion and sediment control measures over the development site whilst construction works are underway as part of CEMP.
- Retain all remaining native vegetation within proposed development site where feasible.
- Noxious weeds should be controlled/eradicated where feasible.
- Consider native revegetation within development site with endemic native species.
- Develop and implement a Vegetation Management Plan for the development site.

## Water

The Sustainability Workshop has reviewed the plans prepared and has provided the following management and mitigation measures:

- A new swale with a longer flow path to convey the CHH runoff around the site and in to a new treatment pond should be constructed. This will provide for the additional reduction of TSS and remove tannins. This swale should be vegetated using either appropriate grasses or macrophytes.
- Construction of a new stormwater treatment pond with a minimum volume of 6 ML. This is to be located downstream of the existing pond and will accept runoff for the whole of the subject site, including any overflows from the existing stormwater treatment pond.
- Both ponds should have a daily demand for stormwater reuse of 200m<sup>3</sup>/day, and any increase in this would generally improve the discharge concentration values. In order to achieve this, a Water Access Licence granting the right to harvest 133ML/annum will need to be granted.
- Given the size of TSS generated (generally larger than 1mm in size), the TSS generated from the Project, particularly during the wood handling process, can easily be filtered out of the water cycle.

In much the same way, the forms of TP and TN associated with the Project will largely be of a larger size and can be filtered out, and are therefore unlikely to pose a significant water quality risk.

In order to minimise the impacts from any accidental spills, the following recommendations were included within this report

- The existing aerated pond should be converted into an emergency catch dam. This will require the dam to be continually drained to ensure there is adequate capacity to absorb either a spill or any firefighting water. This would prevent fire water or spills from entering in to the stormwater treatment ponds.
- This is in addition to the already proposed additional emergency spill basin.
- Any stormwater treatment pond should have a valve controlled outlet which could be closed to contain the contents of the spill in the new treatment pond as a last point of containment.

### **Greenhouse Gases**

- Installation of a 50 MWth biomass heat plant to produce hot air for the flake drying process. This significantly reduces the potential GHG emissions from using fossil fuel for this process, and also utilises a by-product of the production of MDF and particle board.
- A small 8MW oil heater operating with combustion air preheating operating on gas will be used to generate hot oil for the press and other plant and equipment.
- Variable speed drives on fans and pumps to reduce overall electricity demand.
- Extensive use of a SCADA system and sub-metering to assist in monitoring plant performance, provide feedback and improve plant control, allowing for ongoing monitoring and improvement in plant performance.
- Electric chippers have a higher overall efficiency and lower noise compared with diesel chippers when analysed over the full and part load operating cycles, and have been implemented in the Project.

### **Soil**

The existing site is largely disturbed and used for industrial purposes. No change is proposed to occur and the majority of the site is to be sealed.

An existing fuel depot is to be removed at the south western corner of the site, and this will require remediation.

### **Heritage**

No mitigation measures are proposed for European Heritage. No adverse impacts on listed European heritage items are anticipated to occur as a result of the Project being undertaken.

It is considered that the probability of Indigenous heritage items being located on site is low. However, if such items are found then all works will be stopped and consultation with the Local Aboriginal Land Council and National Parks and Wildlife Service representatives will be undertaken.

### **Visual Impacts**

Due to the existing industrial context of the site and surrounding areas, no significant visual impacts are anticipated to occur as a result of the Project. Those visual impacts that are likely to occur are concentrated to the west of the site, immediately along Lowes Mount Road, and to the immediate south west of the Project, impacting upon the adjoining oval.

In both instances, the visual impact will be an extension of the existing visual impact. That is, the new works from the Project will blend with the existing visual context of the site. Mitigation measures are proposed to limit these impacts. These are generally focussed on landscaping treatments along the property boundary, carrying on the existing landscaping regime, and ensuring that all new works are painted in a similar, non-reflective colour scheme as the existing works.

These mitigation measures are considered to be appropriate given the wider context of the site, and the limited views of the Project (from outside of the industrial area, that are not blocked by existing and surrounding industrial development).



## PART I – PROJECT JUSTIFICATION

### 27.0 JUSTIFICATION FOR APPROVAL

#### 27.1. Biophysical, Economic and Social Considerations

##### 27.1.1. Biophysical Factors

The potential biophysical effects associated with the proposed modification were assessed in Part G of this EIS. This EIS concludes that the residual risk associated with these potential impacts is low, once the appropriate mitigation and management measures included in the EIS are implemented. The Project is therefore justifiable in terms of the biophysical elements of the environment. As detailed in Sections 11 and 13, the Project would operate within the relevant air quality and noise criteria.

##### 27.1.2. Sociocultural Factors

The potential effects of the Project on social and cultural values and the aspects that affect them are examined in Part G of this EIS. The assessment presented in this EIS regarding heritage, traffic and visual amenity indicates that, provided appropriate mitigation and management measures as outlined in the Statement of Commitments are implemented, the Project would have a minimal impact on sociocultural factors. Furthermore, the Project is considered to be in accordance with planning requirements. The Project is therefore justifiable on social and cultural grounds.

##### 27.1.3. Economic

The proposed development will provide strong economic benefits to the local, regional and State economies. The additional jobs created at both the plant and in supporting industries will create significant additional employment in the region, and will provide a source of manufacturing employment that is not reliant on the mining sector.

In addition to the direct employment generated as a result of the Project, significant flow on employment is anticipated to occur in service industries, as well as in supporting industries such as construction.

Given that the current unemployment levels in Oberon are low compared to other regional areas, the Project will create additional economic strength and certainty for regional areas.

#### 27.2. Ecologically Sustainable Development

The objectives of the EP&A Act include the encouragement of the principles of Ecologically Sustainable Development (ESD). Supplementary to the EP&A Act objectives, section 7 (1(f)) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 requires a proponent to include in an EIS the reasons justifying the development, including the principles of ESD.

Section 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 defines the principles of ESD as follows:

*(a) The precautionary principle, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*

*(i) Careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*

*(ii) An assessment of the risk-weighted consequences of various options,*

*(b) Inter-generational equity, namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,*

*(c) Conservation of biological diversity and ecological integrity, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,*

*(d) Improved valuation, pricing and incentive mechanism, namely, that environmental factors should be included in the valuation of assets and services, such as:*

*(i) Polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*

*(ii) The users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*

*(iii) Environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.*

The following sections provide the evaluation of the Project with regard to ESD.

### **27.2.1. Precautionary Principle**

The precautionary principle requires careful evaluation of potential environmental damage and risk-weighted consequences of such damage to avoid serious or irreversible harm. In this sense the precautionary principle promotes proactive environmental protection as opposed to reactive measures following environmental damage. In order to satisfy the precautionary principle, the potential for serious or irreversible environmental damage must be anticipated, measured and prevented from the outset to ensure a level of scientific certainty has been achieved in relation to the proposed development.

Accordingly, this EIS has undertaken an evaluation of all key environmental components, as well as secondary components with the potential to influence environmental damage including social and economic considerations. Detailed assessment of key issues and proposed mitigation and management procedures have been conducted as documented in the previous sections of the EIS. Through the adoption of an anticipatory approach, each potential issue arising from the Project has been identified, evaluated and mitigated through a series of design or management solutions.

The assessment process has involved a detailed study of the existing environment and the use of engineering and scientific modelling and study to assess and determine potential impacts as a result of the Project. The process also relied on the experience and expertise of the specialists engaged throughout the assessment phase. To this end, there has been careful consideration to avoid, where possible, irreversible damage to the environment, including the following measures:

- The best available scientific information for the Project area has been relied upon. Where uncertainty in data has been identified, modelling and assessment have been based on an objectively 'worst-case scenario' case analysis with appropriate contingency measures;
- The location and footprint of the Project is on industrial zoned land within an established industrial estate, in the same complex as an existing MDF production facility; and
- Modelling of reasonable worst case scenario air quality emissions, noise emissions, traffic impacts and greenhouse gas emissions has provided greater scientific certainty about the potentially adverse impacts of the Project. This has subsequently resulted in conservative mitigation measures to manage and monitor anticipated environmental impacts

The EIS has anticipated, assessed and managed the potential impacts and uncertainties arising from the Project. It is considered that the uncertainties do not pose a risk of serious or irreversible damage to the environment and is therefore in accordance with the precautionary principle.

### **27.2.2. Intergenerational Equity**

The concept of inter-generational equity requires that the present generation preserves or enhances the health, diversity and productivity of the environment for the benefit of future generations. Essentially it refers to equality between generations. The concept includes both intra-generational equity, i.e. within generations, and inter-generational equity, i.e. between generations. This means that the principle extends beyond the requirement of environmental protection and enhancement for inter-generations, but also requires that the economic and social benefits of the proposal are equally distributed among members of a community intra-generationally.

Throughout the assessment, the type and extent of potential impacts caused by the Project have been analysed and mitigated. The assessment methodologies have adopted a risk-based and worst case scenario approach to ensure improved environmental, social and economic protection for current and future generations. The environmental management and mitigation measures have been developed to minimise the impact of the Project on the environment for future generations.

One very significant issue around inter-generational equity is human-induced climate change driven by atmospheric emissions. Climate change is directly threatening large human populations, especially in low lying countries, and those where rainfall patterns are expected to change to the detriment of food production. The Project will have net beneficial impact on GHG owing to the significant GHG reductions from the replacement of outdated technology, with new mitigation measures and pollution control devices. This is likely to reduce the overall percentage of GHG when viewed in terms of overall output and production.

### **27.2.3. Biological Diversity and Ecological Integrity**

The conservation of biological diversity refers to the maintenance of species richness, ecosystem diversity and health and the links and processes between them. The Project site is located on filled land within a heavy industrial estate and has very limited biodiversity value. An ecological assessment has been undertaken by a qualified specialist to identify the extent of biological diversity on site and the surrounding area, and also to confirm that no significant adverse impacts are expected as a result of the Project.

### **27.2.4. Valuation and Pricing of Environmental Resources**

The principle of improved valuation and pricing mechanisms refers to the need to determine proper values of services provided by the natural environment. The objective is to apply economic terms and values to the elements of the natural environment.

The current facility has a number of licences, trade waste permits and the like applied. These allow for the implementation of monetary value to environmental elements. This approach is to continue under the new approval.

## **27.3. The Objects of the *Environmental Planning and Assessment Act 1979***

This EIS has been prepared having regard to the objects of the EP&A Act. The objects of the Act are found in Section 5 of the Act and are outlined below:

(a) *to encourage:*

(i) *the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns*

*and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*

The Project is located within the context of an existing industrial area, on industrial zoned land, in an area already specified as being a key timber producing area in the Oberon Local Environmental Plan. The Project has been designed to minimise the impacts of both the existing and proposed development on surrounding development. As such it is considered that this object is met.

*(ii) the promotion and co-ordination of the orderly and economic use and development of land,*

The Project represents the sensible use of appropriately zoned land in an area with a history of such development. This object is considered to be met.

*(iii) the protection, provision and co-ordination of communication and utility services,*  
Not applicable to the Project.

*(iv) the provision of land for public purposes,*  
Not applicable to the Project.

*(v) the provision and co-ordination of community services and facilities, and*  
Not applicable to the Project.

*(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*

The Project has been located on existing cleared areas adjoining the existing factory facility. The land has already been significantly disturbed, and a flora and fauna report has been prepared, which indicates that there will be no negative impact on native flora and fauna.

*(vii) ecologically sustainable development, and*

The Project represents the expansion to an ecologically sustainable product, made of 100% plantation timber. The impacts of the Project in terms of air and noise pollution are to be lower than that currently produced on site.

*(viii) the provision and maintenance of affordable housing, and*  
Not applicable to the Project.

*(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and*

Ongoing discussions have been held between Borg Panels, Oberon Shire Council, and relevant state government agencies, including the Department of Planning and Environment. This has ensured that the appropriate approval body has been involved in the project from the outset.

*(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.*

The Project has had ongoing community engagement and stakeholder consultation. This is detailed in Appendix C and Section 9 of this EIS.

As can be seen from the above, the Project can be seen to demonstrate compliance with the objects of the Act.

#### 27.4. Justification Summary

As can be seen from the above, the project can be undertaken with generally positive or neutral outcomes. Ongoing consideration has been given to minimising the impacts of noise and the impacts on air quality, which are the two major identified areas of concern.

The Project:

- Can be undertaken without adversely impacting upon the existing road network,
- Will have no impact upon existing items of European heritage
- Is located on a site with an extensive industrial history and extensive site disturbance, with little probability of any items of indigenous heritage being located
- Is located in an existing industrial context, significantly minimising visual impacts
- Will not significantly increase greenhouse gas emissions from the region
- Significantly decreases levels of air pollution currently generated from the facility
- Will generate significant levels of employment in a regional area that has recently suffered from a number of factory closures
- Will generate significant economic benefits in the region, including substantial flow-on employment generation
- Is part of the ongoing fabric of timber production in the Oberon region
- Utilises significant on site re-use and recycling to minimise overall environmental impacts
- Can be undertaken without adversely impacting upon native vegetation
- Decreases existing noise levels from the facility that currently operates



## PART J – EIS FINDINGS

### 28.0 CONCLUDING STATEMENT

#### 28.1. The Proposal

The Project is for:

- Allow for the construction of a dedicated Particle Board Manufacturing Line to allow Borg to continue their growth and remain internationally competitive
- Create a significant increase in long term employment opportunities within a regional area
- Provide additional infrastructure within existing buildings to value add to existing product
- Modernise the existing facility
- Allow for expansion to Lot 1 and 2 DP 1085563 for the purposes of a wood flake preparation area
- Construct a new automated storage warehouse part on Lot 24 DP 1148073 and part on Lot 26 DP 1200697
- Construction of hardstand on Lot 24 DP 1148073
- Allow for expansion to Lot 1 DP 1076346 for hardstand, water quality ponds and emergency catchment
- Rationalise the current Conditions of Consent under DA 27/95 that apply to a number of different lots, all under fragmented ownership and operation
- Allow for an increase in production by up to 500,000m<sup>3</sup>, with a commensurate increase in staff levels
- Boundary adjustment of Lot 1 DP 1076346 to rectify the current split zoning, consolidating the IN1 zoned land into Lot 26, retaining all the RU1 zoned land under the current Lot and DP
- Lot consolidation of all lots the subject of this application.

#### 28.2. Alternatives

A number of alternatives have been considered during the preliminary planning stages of the Project. These included:

- “Do Nothing”
- An alternative location within NSW
- An alternative location within Australia
- Importation of product from overseas

In each of these alternatives a number of shortcomings were identified. Options 1 and 4 were the first to be rejected as viable alternatives. There is an ongoing demand for MDF and timber laminate products within Australia, and Borg Panels is one of the largest suppliers. By adding a Particle Board production facility to the existing MDF facility they are able to meet ongoing production demands and continue to diversify their market base, as well as ensuring a steady supply of raw materials. The importation of product from overseas has a number of shortcomings, including significantly higher overall environmental impacts, through the lower environmental enforcement regimes of the countries in which the product would be manufactured as well as the significant impacts from transporting the product to Australia, and then transporting the product by road to Oberon for processing at the existing facility.

Options 2 requires more detailed consideration. Borg is committed to undertaking ongoing development in regional, rather than metropolitan areas. This is evidenced by the head office and major operations being located on the Central Coast rather than in Sydney. As such, any alternative location would need to be in a

regional area, with reliable access to plantation timber. This significantly restricts the options for other sites within NSW; areas around Tumut, in the south of the state, are a potential location, however, no other suitable site is currently under the ownership of Borg, and no other site already has existing operations. As such it is considered that the Oberon site is the only potential site within NSW.

Option 3 is also a feasible option. Areas within Victoria in particular have large amounts of timber plantations that can provide the raw materials needed for the production of MDF. However, as with Option 2, the current ownership of the Oberon facility provides for a significant reason to expand these operations rather than purchase an alternative site.

Given the above, the existing ownership of the site, the proximity of plantation timber, the history and heritage of Oberon and the existing development on the site, the proposal represents the most appropriate location for such a development.

### **28.3. Justification for the Proposal**

As detailed above in Part G, the Project is able to be carried out with minimal adverse environmental impacts, and significant positive economic and social impacts.

### **28.4. Sustainability of the Proposal**

The overall sustainability of the Project is considered to be generally high, and a number of decisions and technologies have been implemented to increase the overall sustainability. All timber used in the production of both MDF and Particle Board is plantation timber, with no old growth forests used. Plantation timber is a highly renewable resource, and is also an integral part of the regional economy.

A number of pieces of plant have also been proposed as part of the Project. These are used to create heat and power for the production lines and treatments that the product goes through. This plant allows for the waste product of the production line to be used for fuel. This significantly reduces the overall amount of greenhouse gases generated as a result of the Project being undertaken.

### **28.5. Conclusion**

The Project represents the significant investment in manufacturing in a regional area, and will create a world class, fully integrated plant. As an existing major employer in the region, operating outside of the market dependent mining sphere, the Project represents a continuation of a proven, stable, employment generating industry that has been operating within Oberon for a number of years.

The Project can be undertaken with minimal adverse impacts, and those adverse impacts that are created, such as noise and air quality impacts have been significantly minimised during the design process. Other areas, such as traffic, heritage, ecological and water cycle impacts will have no significant adverse impacts as a result of the Project.

Overall the Project can be undertaken in a way which is respectful to the existing environment of Oberon, whilst still allowing for a significant increase in production with a commensurate increase in employment and regional investment. Given this, it is requested that the positive assessment of the Project is provided, and the ongoing investment from Borg in to regional New South Wales is allowed to continue.