

Dongwha Sawmill, Bombala Modification 4

Installation and operation of a H2F Timber Spray System
State Significant Development Modification Assessment
(SSD 07_0161 MOD 4)

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Cover image: H2F Spray Unit Model. Sourced from: Dongwha Australia Pty Ltd, Bombala Sawmill Modification 4, Modification Report, prepared by GHD, dated February 2020

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Glossary

Abbreviation	Definition
CIV	Capital Investment Value
Council	Snowy Monaro Regional Council
Department	Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
ESD	Ecologically Sustainable Development
LEP	Local Environmental Plan
Minister	Minister for Planning and Public Spaces
Planning Secretary	Secretary of the Department of Planning, Industry and Environment
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
SEPP	State Environmental Planning Policy
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
SSD	State Significant Development

Contents

1	Introduction	1
1.1	Background	1
1.2	Approval history.....	2
2	Proposed modification	3
3	Strategic context	7
4	Statutory context	8
4.1	Scope of modifications	8
4.2	Consent authority	8
4.3	Mandatory matters for consideration	8
4.4	Part 3A transition to State significant development	9
5	Engagement.....	10
5.1	Department's engagement.....	10
5.2	Summary of submissions	10
5.3	Key issues raised in submissions	10
5.4	Response to submissions	10
6	Assessment	11
6.1	Air Quality	11
6.2	Other issues	12
7	Evaluation.....	15
8	Recommendation.....	16
9	Determination.....	17
	Appendices	18
	Appendix A – Modification assessment	18
	Appendix B – Submissions	18
	Appendix C – Response to Submissions	18
	Appendix D – Notice of modification.....	18

1 Introduction

This report provides the NSW Department of Planning, Industry and Environment's (the Department's) assessment of an application to modify the State significant development (SSD) consent for Dongwha Sawmill, at Bombala.

The modification application seeks approval for the installation and operation of a H2F timber spray system (spray system). The installation of the spray system would allow for the treatment of finished timber products with a chemical known as Determite which provides protection from termite and borer attack. Some minor upgrades to the existing production line would be required to facilitate the installation of the spray system. Existing timber processing and treatment limits would not be exceeded.

The application was lodged on 19 February 2020 by Dongwha Australia (the Applicant) pursuant to section 4.55(1A) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1 Background

The Applicant owns and operates a sawmill and timber processing facility at 1 Sandy Lane, Bombala, in the Snowy Monaro local government area. Products manufactured at the site include structural, landscaping, fencing and decorative timbers.

The site is located approximately two kilometres (km) south-west of the township of Bombala, between Sandy Lane, Delegate Road and Wedmore Road (see **Figure 1**). The site is surrounded by farmland and the nearest residential receiver, known as Trevanion, is located approximately 150 metres (m) south-west of the site boundary. There is also a commercial receiver located on the western boundary of the site which is a guest house used by the Applicant for visiting staff or contractors.

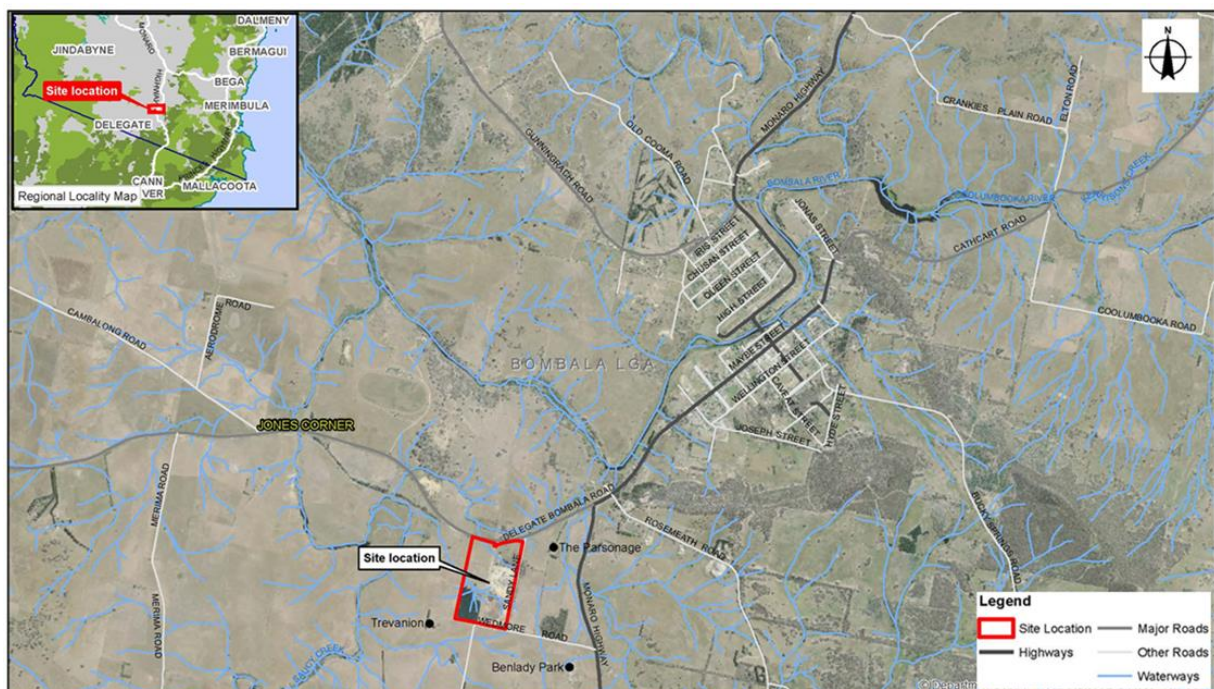


Figure 1 | Site Location and Regional Context Map

Timber milling operations commenced on the site in 1979 and the facility has previously been the subject of more than 20 development consents issued by the former Bombala Council (now Snowy Monaro Regional Council) for various upgrades and expansions.

1.2 Approval history

On 7 September 2010, project approval was granted by the then Minister for Planning under the former Part 3A of the EP&A Act for the Willmott Timbers Pty Ltd (now Dongwha Australia) Sawmill expansion (07_0161). The project was transitioned to SSD by order, which took effect by publication in the NSW Government Gazette on 7 September 2018.

The 2010 project approval (MP 07_0161) permits the construction of a new green mill and timber treatment plant and associated infrastructure including four boilers, ten drying kilns, two steamers, a new wastewater management system, a new site access and a new office and car park.

The Applicant is progressively implementing this expansion, and when completed, is permitted to:

- process up to 400,000 tonnes per annum (tpa) of saw logs; and
- treat up to 150,000 tpa of timber for improved durability.

The Applicant currently processes less than 105,944 tonnes of saw logs and treats less than 31,785 tonnes of timber annually.

The project approval, now development consent, has been modified on three previous occasions (see **Table 1**).

Table 1 | Summary of Modifications

Mod No.	Summary of Modifications	Approval Authority	Type	Approval Date
MOD 1	Administrative changes allowed the project to be more accurately defined and developed in site 'zones' rather than sequential stages; and minor changes to the design and layout of the sawmill.	Minister	75W	10 February 2012
MOD 2	Allowed for the replacement of four approved boilers (including three gas-fired boilers and one wood-fired boiler) with a single 18-megawatt (MW) wood-fired boiler.	Minister	75W	15 July 2015
MOD 3	Allowed for the installation of a new 15 MW wood-fired boiler to be installed in place of the 18 MW wood-fired boiler approved under MOD 2 and to replace the 10 MW gas-fired boiler currently operational on site.	Minister	4.55(1A)	19 February 2019

2 Proposed modification

The modification application seeks approval for the installation and operation of a linear spray system for the treatment of finished timber framing material. The proposed spray system comprises an enclosed booth in which the surface of the timber would be sprayed with a treatment as it passes through via a conveyor belt (see **Figure 2**).



Figure 2 | Proposed H2F Timber Spray System Model, including A: Linear Sprayer including an enclosed booth, B: Infeed Roller Conveyor & C: Outfeed Roller Conveyor

The finished timber would be treated with a preservative chemical product known as Determite. Determite is not listed as a dangerous good and is a water-borne timber preservative which repels termites and acts as an insecticide when the treated timber is consumed. The active ingredient in Determite is a chemical known as bifenthrin which is used extensively for timber treatment, domestic pest control and agricultural purposes. The Determite treatment would be the final process prior to the packaging of the timber for sale.

The spray unit would be installed within an existing production line located in the Satellite Line Building (see **Figures 3, 4 and 5**). The production line is currently used to remove wooden fillet sticks (used in the drying process) from the timber. Some upgrade to the production line would be required, specifically the existing conveyor belt would require modification to allow the timber to slide across from the outfeed roller conveyor. Bunding would also be installed surrounding the location of the spray system. No other infrastructure or buildings onsite would require alteration.

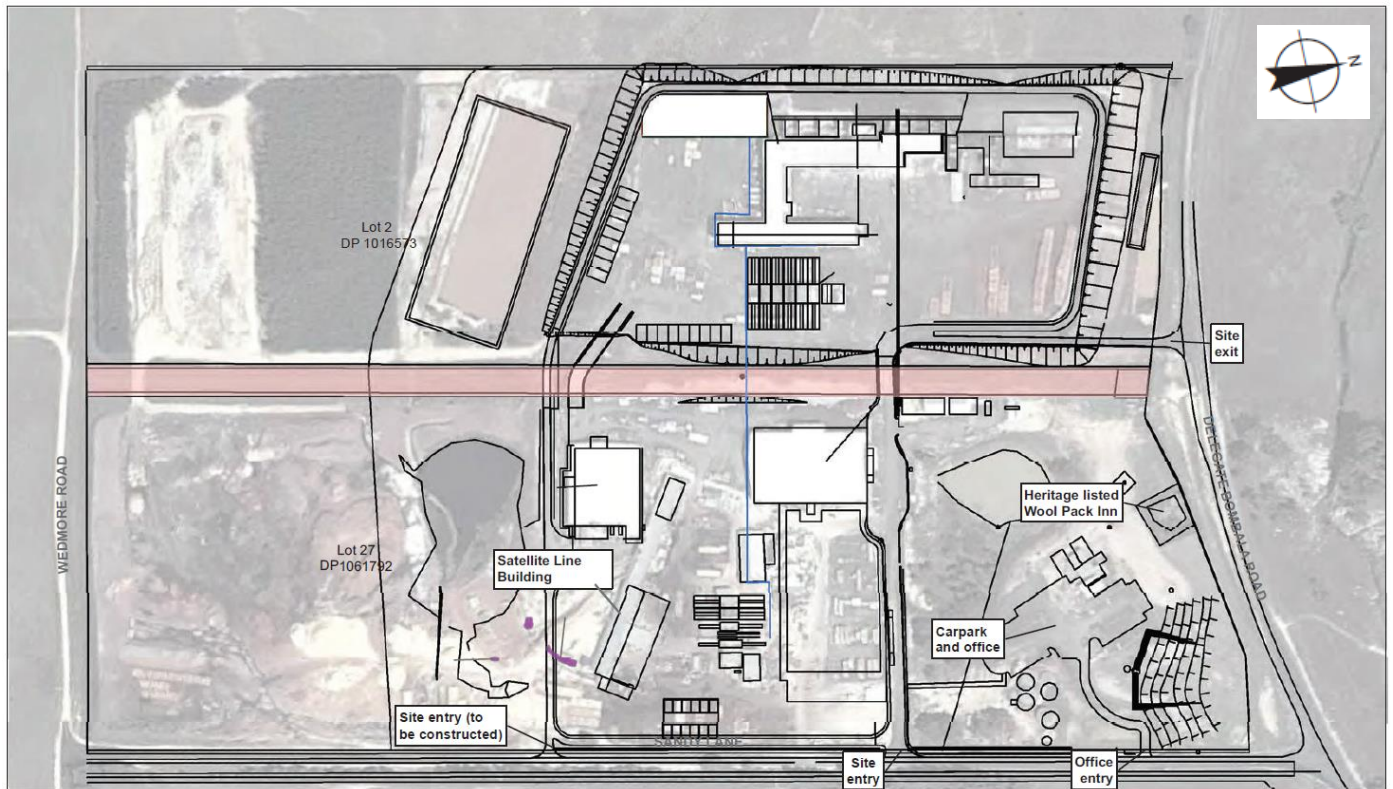


Figure 3 | Site Layout



Figure 4 | Satellite Line Building, proposed location for H2F timber spray system



Figure 5 | Internal location of proposed H2F timber spray system

The installation process would take approximately five days and would be undertaken by two employees from the spray system manufacturer. Electrical connection and installation would then be completed by the Applicant and is expected to take one day. Following installation, the spray system would be operated by the Applicant's existing workforce.

The proposed modification would not result in an exceedance of the approved timber processing or treatment limits however there would be an increase in the quantity of timber treated on-site. Approximately 55,694 m³ of timber would be treated annually following the commissioning of the spray system. This includes existing timber treatment with light organic solvent preservative and copper-chromium-arsenate which represents 47,194 m³ annually, plus an additional 8,500 m³ which would be treated with Determite using the new spray system.

The modification application provided a preliminary, desktop-level, environmental risk assessment to identify the potential environmental impacts associated with the modification. The assessment identified potential impacts to air quality and waste management and concluded that there would be no other impacts associated with the modification.

Justification for the modification

The modification application notes that the sawmilling industry is increasingly implementing H2F timber spray systems as they represent a cost-effective treatment option that is popular with consumers. Additionally, it is noted that most Australian Councils now require H2F treated timber for housing permit

applications. The proposed modification would therefore allow the Applicant to service current market demand and keep up with technological advancements within the industry.

Additionally, it is noted that Determite H2F was specifically selected by the Applicant as it is a product designed specifically for application on internal timber framing material and is typically applied using spray equipment in-line with the sawmill production system. Further, it provides a dual action, repelling termites and acting as an effective insecticide when consumed.

3 Strategic context

The site is located within the South East and Tablelands Region as identified in the South East and Tablelands Regional Plan 2036 (the Regional Plan). The Regional Plan takes a cross-border approach to economic investment, infrastructure delivery, service provision and housing development and seeks to facilitate sustainable growth and optimise economic opportunity.

The NSW Government's vision for the South East and Tablelands is 'A borderless region in Australia's most geographically diverse natural environment with the nation's capital at its heart' (see **Figure 6**). To achieve this vision, the Government has set four key goals for the region:

- a connected and prosperous economy;
- a diverse environment interconnected by biodiversity corridors;
- healthy and connected communities; and
- environmentally sustainable housing choices.

The goal most relevant to this modification is *Goal 1: A connected and prosperous economy - Direction 5: promote agriculture innovation, sustainability and value-add opportunities*. Specifically, the Regional Plan notes that building innovation and sustainability into the agricultural sector will improve the sector's adaptability and ability to maintain high quality, clean and green produce.

Overall, the proposed modification is consistent with the strategic direction set out for the South East and Tablelands Region in the Regional Plan.

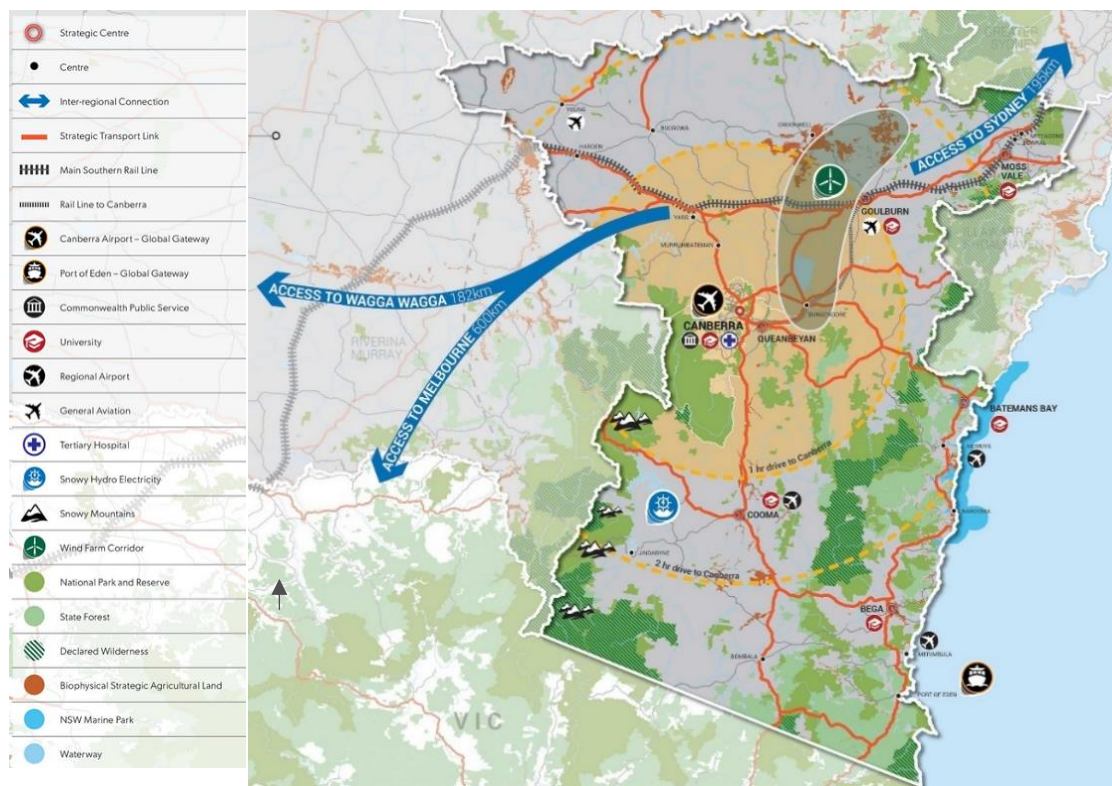


Figure 6 | South East and Tablelands Regional Plan 2036

4 Statutory context

4.1 Scope of modifications

The Department has reviewed the scope of the modification application and considers that the application can be characterised as a modification involving minimal environmental impacts as the proposal:

- would not significantly increase the environmental impacts of the project as approved;
- is substantially the same development as originally approved; and
- would not involve any further disturbance outside the already approved disturbance areas for the project.

Therefore, the Department is satisfied the proposed modification is within the scope of section 4.55(1A) of the EP&A Act and does not constitute a new development application. Accordingly, the Department considers that the application should be assessed and determined under section 4.55(1A) of the EP&A Act rather than requiring a new development application to be lodged.

4.2 Consent authority

The Minister will be the consent authority under section 4.5(a) of the EP&A Act.

Minister's delegate as consent authority

The Minister for Planning and Public Spaces is the consent authority for the application under section 4.5(a) of the EP&A Act. However, under the Minister's delegation dated 9 March 2020, the Director, Industry Assessments, may determine the application as:

- the application has not been referred to the Independent Planning Commission prior to the date of the delegation; and
- a political disclosure statement has not been made; and
- there are no public submissions in the nature of objections.

4.3 Mandatory matters for consideration

The Department conducted a comprehensive assessment of the project against the mandatory matters for consideration as part of the original assessment of 07_016. The Department considers this modification application does not result in significant changes that would alter the mandatory matters for consideration under section 4.15 of the EP&A Act and conclusions made as part of the original assessment.

4.4 Part 3A transition to State significant development

This project was originally approved under the former section 75J of the EP&A Act and was a transitional Part 3A project under Schedule 2 of the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017 (EP&A (ST&OP) Regulation).

Following amendments to the EP&A Act and the commencement of the associated EP&A (ST&OP) Regulation on 1 March 2018, the power to modify Part 3A project approvals under former section 75W is no longer available for modifications submitted after 1 March 2018. In order to modify a transitional Part 3A project approval, the Minister for Planning and Public Spaces can declare the development to be SSD by order under clause 6 of Schedule 2 of the EP&A (ST&OP) Regulation. If a declaration is made the project approval becomes a development consent which can be modified under Part 4 of the EP&A Act if it meets the relevant criteria.

On 5 September 2018 the Director, Industry Assessments (as delegate of the then Minister for Planning), made an order under clause 6 of Schedule 2 to the EP&A (ST&OP) Regulation declaring the development the subject of project approval to be SSD. The order was published in the NSW Government Gazette on 7 September 2018 and took effect from that date.

The effect of this order is that:

- the project approval is taken to be a development consent under Part 4 of the EP&A Act for the carrying out of the development.

5 Engagement

5.1 Department's engagement

Clause 117(3B) of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) specifies that the notification requirements of the EP&A Regulation do not apply to section 4.55(1A) modifications with minimal environmental impact applications. Accordingly, the application was not advertised. However, it was made publicly available on the Department's website on 20 February 2020 and was referred to the NSW Environment Protection Authority (EPA) and Snowy Monaro Regional Council (Council) for comment.

5.2 Summary of submissions

During the notification period, the Department received one submission on the proposal from the EPA. No submissions were received from Council or the general public. A link to the full copy of the EPA's submission is provided at Appendix D.

5.3 Key issues raised in submissions

In its submission, the EPA noted there is potential for the modification to result in air emissions associated with the H2F timber treatment process. The EPA noted that a comprehensive air quality impact assessment was not completed to support the modification application and therefore recommended that additional information be provided prior to, and following, the commissioning of the spray system. Specifically, the EPA recommended conditions that would require the Applicant to provide a performance guarantee confirming the demister is fit-for-purpose for controlling emissions of bifenthrin, as well as a detailed risk assessment of bifenthrin emissions from the spray unit prior to commissioning the H2F timber spray system. Additionally, a consent condition (condition) was recommended requiring the Applicant to undertake post commissioning testing of the spray system to confirm the environmental performance of the demister.

Additionally, the EPA noted that any waste generated by the spray unit should be contained and assessed in accordance with the Waste Classification Guidelines and any waste that cannot be re-used or recycled must be transported to a place that can lawfully accept the waste for disposal in accordance with the *Protection of the Environment Operations Act 1997* (POEO Act) and the *Protection of the Environment Operations (Waste) Regulation 2014*.

The EPA also noted that if the modification is approved the Applicant would be required to lodge an application for an Environment Protection Licence (EPL) variation.

5.4 Response to submissions

The Applicant provided a response to submissions (RTS) on 23 March 2020 acknowledging the EPA's submission and noting it would work with the EPA to provide all additional information required. The Applicant also noted it had no objection to the conditions proposed by the EPA. A link to a copy of the Applicant's RTS is provided at Appendix E.

6 Assessment

The Department has assessed the merits of the proposed modification. During this assessment, the Department has considered the:

- modification assessment provided to support the proposed modification (see Appendix A);
- assessment report for the original development application and subsequent modification applications;
- existing conditions of consent (as modified);
- submission received from the EPA (see Appendix B);
- relevant environmental planning instruments, policies and guidelines; and
- requirements of the EP&A Act, including the objects of the EP&A Act.

The Department's considers air quality to be the key assessment issue.

6.1 Air Quality

The proposed modification has the potential to have air quality impacts associated with the operation of the spray system and the potential emission of bifenthrin into the atmosphere.

The modification application included a desktop risk assessment to determine the level of risk associated with the use of Determite. The risk assessment noted that if the timber treatment process is not managed appropriately, bifenthrin could be emitted into the atmosphere however concluded the proposed modification represents a low risk of having any impacts on the local air quality.

The Applicant has outlined that the following control measures are proposed to be implemented to manage air emissions:

- the spray system would include an enclosed booth which the timber would pass through via a curtain
- a centrifugal fan unit would be mounted on top of the spray system and generate a vacuum providing suction pressure in the spray chamber preventing spray from escaping
- preservative from over-spray, conveyors, chain rollers and the demister would be directed into a collection tank
- the application rate would be small, and the preservative dries quickly, allowing minimal contamination following the spray booth, and
- the spray booth would be designed to ensure all vapours pass through a demister to catch any preservative droplets prior to releasing the vapour into the atmosphere.

The modification application also included results of emissions monitoring undertaken for a similar spray system. The monitoring results included static monitoring to determine 'worst case' ambient concentrations of bifenthrin and included seven ambient samples taken over a single shift. All sample results measured bifenthrin concentrations below the reporting limit.

There are a number of existing consent conditions and requirements under the Applicant's EPL which relate to managing air quality at the site, including the Air Quality Management Plan and requirements to undertake air quality monitoring. These plans and monitoring requirements would need to be updated as part of any approval of the modification.

As discussed in section 5.3, the EPA noted that a comprehensive air quality impact assessment was not undertaken, however, was able to provide recommended conditions, should the modification be approved. These conditions included a requirement for the Applicant to provide a performance guarantee confirming the demister is fit-for-purpose for controlling emissions of bifenthrin and to undertake post-commissioning to confirm the environmental performance of the spray system.

The Department notes the Applicant's conclusions are based on the system design and specific control measures proposed to be implemented, as well as monitoring results provided from a similar spray system. It is therefore critical that the performance of the proposed control measures are guaranteed and emissions predictions are verified to ensure potential air quality impacts are minimised.

The Department supports the EPA's recommendations as well as the Applicant's proposed control measures to mitigate potential air quality impacts associated with the operation of the spray system. Therefore, the Department has recommended the following conditions:

- provide a performance guarantee (or similar) prior to commissioning the spray system which confirms the demister is fit-for-purpose for controlling emissions of bifenthrin;
- provide a risk review prior to commissioning the spray system which confirms the risk of bifenthrin emissions from the spray unit based on the expected performance of the demister and plant operating conditions; and
- conduct post-commissioning testing on the outlet of the demister fan exhaust to confirm the environmental performance of the demister.

The Department notes the spray system would operate within an enclosed building distant from sensitive receivers. Additionally, the spray system would meet all relevant environmental performance standards and staff would be required to undergo appropriate training prior to use.

The Department's assessment concludes that the risk of offsite air quality impacts associated with the modification would be low and any potential air quality impacts would be appropriately managed via the Applicant's proposed mitigation measures, implementation of the existing and recommended conditions of consent and the Applicant's EPL.

6.2 Other issues

Table 2 | Other Issues

Issue	Findings	Recommendations
Waste	<ul style="list-style-type: none"> • The modification would result in a small increase in the quantity of solid and liquid waste generated from the development (less than three 200 litre drums of waste annually). • Waste generated from the operation of the spray system would consist of wood fibre and dust collected from the filtration 	<p>Require the Applicant to:</p> <ul style="list-style-type: none"> • comply with relevant statutory requirements for managing waste in accordance with the requirements of the POEO Act and EPA guidelines.

system and wastewater which would be generated from the cleaning of the filters.

- The wood dust and fibre would be filtered through the filtration system and the waste from the filters would then be placed into lined drums for collection.
- Wastewater from the cleaning process would be recycled through the onsite wastewater treatment system.
- The EPA noted in its submission that any waste generated from the operation of the spray system should be contained and assessed in accordance with the EPA's *Waste Classification Guidelines* and any waste that cannot be re-used or recycled be managed in accordance with the POEO Act and the Protection of the Environment Operations (Waste) Regulation 2014.
- The Department supports the EPA's recommendation and has recommended conditions requiring the Applicant to manage waste in line with the relevant requirements.
- The Department's assessment concludes that waste impacts associated with the modification would be appropriately managed via implementation of the existing and recommended conditions of consent.

Noise

- The primary noise sources associated with the modification relates to the delivery of wood to the Satellite Line Building for treatment and the use of the roller shutter door.
- The Satellite Line Building shutter door would remain closed when forklifts are not functioning which is consistent with existing operations.
- Existing management and mitigation measures, including annual noise monitoring and reporting, would continue to be implemented to ensure the modification does not result in an exceedance of the approved noise limits.

Require the Applicant to:

- comply with existing condition 9 of schedule 3 and obligations under the EPL.

- The proposed modification would not significantly increase the current noise levels from the development as assessed as part of the original approval and subsequent modifications.
 - The Department's assessment concludes that noise and vibration impacts associated with the modification would be similar to the approved development and would be appropriately managed via implementation of the existing conditions of consent.
-

7 Evaluation

The Department has assessed the proposed modification in accordance with the relevant requirements of the EP&A Act, including the relevant mandatory considerations under section 4.15 of the EP&A Act and the objectives of the EP&A Act.

The Department's assessment of the proposed modification to install and operate a new spray system concludes the following:

- the modification would not impact upon the approved timber processing and treatment limits;
- the modification is consistent with the strategic direction set out for the region in the Regional Plan; and
- air quality impacts associated with the operation of the spray system would be managed through the requirements set out in the Applicant's EPL as well as the existing and proposed consent conditions which require the provision of a risk review, system performance guarantee and post-commissioning testing to confirm the environmental performance of the demister.

The Department considers the proposed modification is appropriate on the basis that:

- it would result in minimal environmental impacts beyond those generated by the approved development;
- no concerns were raised by public authorities, Council or the general public regarding the modification; and
- satisfactory management and mitigation measures would be put in place to manage potential impacts.

Overall, the Department is satisfied the impacts arising from the proposed modification can be appropriately managed through the Applicant's proposed mitigation measures, the existing conditions, the Applicant's EPL and the Department's recommended modifying conditions. It is therefore recommended that the modification should be approved, subject to conditions.

8 Recommendation

It is recommended that the Director, Industry Assessments, as delegate of the Minister for Planning and Public Spaces:

- **considers** the findings and recommendations of this report;
- **determines** that the application SSD 07_0161 MOD 4 falls within the scope of section 4.55(1A) of the EP&A Act;
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to approve the modification;
- **modify** the consent SSD 07_0161 MOD 4; and
- **signs** the attached approval of the modification (**Appendix D**).

Recommended by:



Olivia Hirst
Environmental Assessment Officer
Industry Assessments

Recommended by:



Joanna Bakopanos
Team Leader
Industry Assessments

9 Determination

The recommendation is **Adopted** by:



20 April 2020

Chris Ritchie

Director

Industry Assessments

as delegate of the Minister for Planning and Public Spaces

Appendices

Appendix A – Modification assessment

<https://www.planningportal.nsw.gov.au/major-projects/project/27111>

Appendix B – Submissions

<https://www.planningportal.nsw.gov.au/major-projects/project/27111>

Appendix C – Response to Submissions

<https://www.planningportal.nsw.gov.au/major-projects/project/27111>

Appendix D – Notice of modification

<https://www.planningportal.nsw.gov.au/major-projects/project/27111>