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ALLIED PINNACLE FLOUR AND MAIZE MILL

PROPOSED MODIFICATION (DA-318-12-2004)

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Allied Pinnacle Flour and Maize Mill Proposed Modification (DA-318-12-2004)

Hunt Architects

WSP Level 3, 51-55 Bolton St Newcastle NSW 2300 PO Box 1162 Newcastle NSW 2300

Tel: +61 2 4929 8300 Fax: +61 2 4929 8382 wsp.com

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	NAME	DATE	SIGNATURE
Prepared by:	Bernadette Quirk	10/11/2021	BAUA
Reviewed by:	Mark Maund	10/11/2021	20
Approved by:	Mark Maund	10/11/2021	20

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ABBREVIATIONS

AAQMS	Ambient Air Quality Monitoring Station
ACHDDA	Aboriginal Cultural Heritage Due Diligence Assessment
AHIMS	Aboriginal heritage information management system
Air NEPM	National Environment Protection (Ambient Air Quality) Measure
Allied Pinnacle	Allied Pinnacle Pty Ltd
AQIA	Air Quality Impact Assessment
AS	Australian Standard
AWS	Automatic Weather Station
AWTS	Aerated wastewater treatment system
BOD	Biological oxygen demand
BoM	Bureau of Meteorology
CNVA	Construction Noise and Vibration Assessment
CNVS	Construction Noise and Vibration Strategy
СО	Carbon monoxide
DA	Development application
DIR	Design irrigation rate (L/m ² /day)
DPIE	Department of Planning, Industry and Environment
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EPL	Environment protection licence
Heritage Act	Heritage Act 1977
HV	Heavy vehicles
ICNG	Interim Construction Noise Guideline 2009
ISO	International Organization for Standardization
LGA	Local Government Area
LV	Light vehicles
LVIA	Landscape and visual impact assessment
MNES	Matters of National Environmental Significance
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NMLs	Noise Management Levels
NSW	New South Wales
NSW EPA	NSW Environment Protection Authority

OOHW	Out of hours works
p.a.	Per annum
PAD	Potential archaeological deposit
PAHs	Polycyclic Aromatic Hydrocarbons
РНА	Preliminary hazard analysis
PM	Particulate Matters
PM ₁₀	Particles with an aerodynamic of 10 micrometres or less
PM _{2.5}	Particles with an aerodynamic of 2.5 micrometres or less
POEO Act	Protection of the Environment Operations Act 1997
RNP	NSW EPA Road Noise Policy 2011
SEPP	State Environment Planning Policy
SEPP 33	State Environment Planning Policy No. 33 – Hazardous and Offensive Development
SH	Standard hours
SO ₂	Sulphur dioxide
SWL	Sound power level
TfNSW	Transport for NSW
VOCs	Volatile organic compounds
WELS	Water Efficiency Labelling and Standards
Wollondilly LEP	Wollondilly local environmental plan 2011
WSP	WSP Australia Pty Limited
Units	
°C	Degree Celsius
dB	Decibel
km	kilometre
km/h	kilometre per hour
m	Metre
m ²	Square metre
mAHD	metres Australian Height Datum
mm	Millimetres
$\mu g/m^3$	Microgram per cubic metre

EXECUTIVE SUMMARY

THE PROPOSAL

Hunt Architects on behalf of Allied Pinnacle Pty Ltd (Allied Pinnacle) is seeking to modify the approval for the existing flour and maize mill located at 330 Picton Road, Maldon, NSW within the Wollondilly local government area (Lot 1, DP 1128013). The existing development (DA-318-12-2004) was approved under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The existing approval is for the construction and operation of a flour and maize mill with 300,000 tonnes per annum capacity. The approved development has been modified on three occasions.

This modification report has been prepared as part of the request to modify DA-318-12-2004. The proposed modification is seeking approval under Section 4.55(1A) of the EP&A Act to extend the existing building to the northwest. Key aspects of the proposal include the establishment of a circulation, ingredient holding and de-packaging room, a test kitchen and pre-weigh room and a complex mix room, all within the existing building. A warehouse extension (for holding and dispatch of finished product, and storage of bulk ingredients), office, sheltered concrete slab and amenities would be established in an expansion of the building to the northwest, within a cleared, compacted area.

Production is estimated to be increased by 3,900 tonnes annually and would employ up to 10 additional staff, with around 30 jobs generated during construction. Additional operational traffic movements would include around 5 trucks per day. The proposed expansion of the mill would enable the facility to manufacture a range of bakery pre-mixes.

ENVIRONMENTAL IMPACTS

The existing facility is situated in a rural environment with the surrounding area comprising of single storey dwellings, small scale agriculture and some industry. Sensitive receptors in the vicinity of the proposal were identified as five residential, one commercial and two industrial receptors.

Potential impacts to air quality include dust and combustion emissions during construction and odour and combustion emissions during operation. Implementation of site-specific mitigation measures for the proposal would result in a low to negligible impact on the nearest sensitive receptors.

The assessment of construction noise impacts indicates that noise levels are predicted to comply with relevant noise management levels under the majority of construction scenarios at most receptors. Outside of hours work scenarios generated some exceedances of noise management levels; however, no residential receivers are anticipated to be highly noise affected by construction activities.

Traffic generated by the proposed construction activities is not expected to be significant compared with existing traffic volumes and is not anticipated to result in a significant increase to existing traffic noise levels. The operation of vibration intensive plant would occur outside minimum working distances for cosmetic damage and human comfort at all receivers. Total traffic generation of the development (existing and proposed) would be 85 light vehicles and 40 heavy vehicles. Conservative modelling indicates that potential operational impacts may include a minor increase in delay for turn movements into the site in the near future, and eventual diminished intersection performance in the further future, with the increase of background traffic. The construction workforce would include a maximum of 15 to 25 staff per day (average 10 to 15), accessing the site via the Hume Highway. The likely impacts are minimal based on low volumes of the generated construction traffic.

The proposal has a limited visual catchment due to the intervening landform and existing vegetation. Where the proposed expansion would be visible, it would have a low visual impact to views from the public domain and on views from residential dwellings. Existing landscape treatments suitably screen the mill from nearby residences and roads. As such, there is no need for any further visual mitigation.

The addition of 10 staff for the proposal would increase the domestic wastewater produced onsite by permanent employees. However, continued use of the existing wastewater treatment system onsite would be sufficient. The system would require a larger irrigation disposal area, recommended to be increased to a total 1,750m². The expansion would also generate process wastewater that would require onsite treatment and disposal. It is proposed that a new, five-stage wastewater treatment system and disposal area would be installed onsite, with the capacity to handle up to 6,000 litres per day of processing wastewater. The system and disposal area would be located downslope of the domestic wastewater irrigation area, with a disposal area of 2,750m².

An Aboriginal Cultural Heritage Due Diligence Assessment (ACHHDA) identified that eight listed Aboriginal sites were recorded within the property boundary of Lot 1 DP 1228013, recorded as part of historical investigation at the property during the construction of the mill. One potential archaeological deposit (PAD) was found to be located within the boundaries of the current study area, however this PAD was salvaged in 2007. It was concluded that further assessment for the warehouse building expansion is not warranted, and the proposal may proceed with caution. Should any Aboriginal objects be encountered during works associated with this proposal, works must cease in the vicinity and the site assessed. It is noted that the new, proposed wastewater treatment system onsite has not been included in this assessment, and an additional ACHHDA would be prepared to assess these works.

The existing operation is considered 'potentially hazardous' under State Environment Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33) due to the consideration of other risk factors. Assessment concluded that risks would be managed by engineering and procedural controls and there is no significant off-site risk that requires further analysis. No further control measures were recommended.

1 INTRODUCTION

1.1 MODIFICATION OVERVIEW

Hunt Architects on behalf of Allied Pinnacle Pty Ltd (Allied Pinnacle) has engaged WSP to prepare an application to modify the approval for the existing flour and maize mill. The site is known as 330 Picton Road, Maldon within the Wollondilly local government area. This report has been prepared as part of the request to modify DA-318-12-2004 that was approved under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.2 PROPONENT

Allied Pinnacle is one of Australia's largest manufacturers and distributors of bakery premixes, flour and semi-finished products. Allied Pinnacle (formerly Allied Mills) has a heritage encompassing more than 100 years of flour milling and food ingredient experience. Every year Allied Pinnacle procure from Australian growers, wheat and specialty grains including maize, rye, triticale, organic, hard, soft and noodle wheats. Allied Pinnacle has a wide range of customers incorporating major independent and multinational food manufacturers, supermarket retailers and foodservice operators.

1.3 REPORT STRUCTURE

This report has been prepared to outline the proposed modification, statutory requirements and environmental assessments. To achieve this, the report includes the following sections:

- Chapter 1 Introduction
- Chapter 2 Development site
- Chapter 3 Proposed modification
- Chapter 4 Statutory planning
- Chapter 5 Environmental impact assessment
- Chapter 6 Section 4.15(1) matters
- Chapter 7 Conclusion
- Chapter 8 References.

2 DEVELOPMENT SITE

2.1 SITE DESCRIPTION

2.1.1 SITE LOCATION

The proposal is located at 330 Picton Road, Maldon and approximately three kilometres southwest of the town of Picton. The property (Lot 1, DP 1128013) is bisected by the Main Southern Railway Line and is accessed from Picton Road to the east. The existing mill facility is located north of the Main Southern Railway, and no work is proposed to occur in the portion of the Lot located to the south of the railway.

2.1.2 ADJOINING LAND USES

Adjoining land use are shown in Figure 2.1 and include industrial, rural and environmental land uses as follows:

- Land to the north: industrial properties including Fitzsimmons Diesel, CT Bodyworks and Picton Karting Track.
 Beyond Picton Road land uses are generally rural, including a number of rural dwellings.
- Land to the east: rural properties are located to the east with the Nepean River approximately 2 kilometres further east.
- Land to the south: Main Southern Railway is south of the proposed building site (and bisects the property) with E2 Environmental Conservation zoned land and the Nepean River approximately 1 kilometre from the proposed building site and immediately adjacent to the southern property boundary.
- Land to the west: Carriage Creek is west of the proposed building site on the western part of the property. Further west is the Boral Cement works and Stonequarry Creek.

2.2 EXISTING DEVELOPMENT

2.2.1 EXISTING APPROVALS

The existing flour and maize mill was approved under Part 4 of the EP&A Act on 9 August 2005. The approval involves construction and operation of a flour and maize mill with 300,000 tonnes per annum capacity, including:

- mill and ancillary facilities including silos, bulk storage, grain handling, loading and unloading facilities
- a rail spur
- site access road off Picton Road
- surface water works including creation of a bioswale and rehabilitation of an existing water course
- ancillary offices, car parking, laboratory and amenities.

The approved development has been modified on three occasions as follows:

- Modification 1 Administrative changes including minor modifications to the location and design of the amenities building.
- Modification 2 Location of rail siding.
- Modification 3 Wastewater including modifications to the conditions of consent.

2.2.2 EXISTING DEVELOPMENT

The mill has been constructed on the portion of the site adjacent to the existing railway line. Existing development is shown in Figure 2.1 and Figure 2.1 and comprises the approved:

- modern milling facility including silos, bulk storage, grain handling, rail handling, loading and unloading facilities, office administration building and ancillary on-site facilities
- 800 metre double rail siding with shunting and turn back facilities
- existing vehicular access off Picton Road
- landscaping and riparian zone around Carriage Creek.



Figure 2.1 View of the existing mill from Menangle Street looking south



View of the existing mill and visual landscape buffer from Picton Road looking south west

2.2.3 EXISTING OPERATIONS

The mill operates 24 hours a day over three shifts. The grain (wheat and maize) intake for the facility is via rail with opportunity to receive grain by road as a contingency for events such as rail shutdowns. Grain is received directly by train into an underground intake pit and transported to bulk storage pits through underground conduits and stored in silos. Wheat and maize are processed into finished products including:

Figure 2.2

- fine low ash flour
- baker's flour
- biscuit flour
- wheat semolina
- general purpose flour
- noodle and wholemeal flours
- flaking grits
- semolinas
- polenta
- residual maize flour.

The 800 metre railway spur runs parallel to the Main Southern Railway line and accommodates train lengths of approximately 640 metres.

3 PROPOSED MODIFICATION

3.1 PROPOSED WORKS

The proposal involves expanding the existing building to the north within the existing cleared and compacted area. The proposal's capital investment value would be \$4.98 million.

Key aspects of the proposed extension are as follows:

- circulation, ingredient holding and de-packaging room (within existing building)
- test kitchen and pre-weigh room (within existing building)
- complex mix room (within existing building with new expansion through the roof)
- warehouse extension (warehouse for holding and dispatch of finished product, storage of bulk ingredients)
- office
- sheltered concrete slab
- amenities.

The site location plan and preliminary site plan are provided in Appendix A. As shown on the attached concept architectural plans the proposal includes the following:

ROOM NAME	ROOM NO.	AREA	VOLUME	FUNCTION		
New Building Extension						
Warehouse	GF-01	451.433m ²	3518.734m ³	Warehouse for holding and dispatch of finished product. Storage of bulk ingredients.		
Office	GF-02	20.470m ²	53.220m ³	Warehouse management office.		
Toilet	GF-03	2.874m ²	6.893m ³	Toilet facilities for truck drivers.		
		Refurbished /	Re-purposed B	Existing Spaces		
De-packaging	GF-04	81.056m ²	364.752m ³	Circulation, ingredient holding and de-packaging room.		
Complex Bagging Line 1	GF - 05	23.320 m ²	108.394 m ³	Airlock space and gowning room.		
Complex Bagging line 2	GF - 06	46.974 m ²	187.895 m ³	Airlock space		
Complex Mix Packaging Room	GF - 07	230.506 m ²	1152.533 m ³	Bagging line packaging with temporary product holding.		
Air – Lock	GF - 08	2.635 m ²	10.540 m ³	Circulation		
Gowning Room	GF - 09	8.075 m ²	32.300 m ³	Airlock space and gowning room.		
Anti-Room	GF - 10	70.381 m ²	281.568 m ³	Circulation and warehouse airlock		
Pre-Weigh Room	GF - 11	38.720 m ²	212.962 m ³	Ingredient weighing room.		
Test Kitchen	GF - 12	21.723 m ²	56.481 m ³	Research and development kitchen and product batch testing.		

Table 3.1 Proposed modification

ROOM NAME	ROOM NO.	AREA	VOLUME	FUNCTION			
	Expansion above existing Warehouse Roof						
Mixer 01	MF - 01	35.672 m ²	155.418 m ³	Mixing line 1 blender			
Mixer 02	MF- 02	33.767 m ²	147.117 m ³	Mixing line 2 blender			
Corridor	MF- 03	47.385 m ²	198.211 m ³	Circulation			
Mixer 03	MS- 01	35.672 m ²	132.400 m ³	Mixing line 1 ingredients hopper			
Mixer 04	MS- 02	33.767 m ²	109.314 m ³	Mixing line 2 ingredients hopper			
Corridor	MS- 03	46.593 m ²	165.745 m ³	Circulation			

3.2 ADDITIONAL INFORMATION ON PROPOSAL

3.2.1 BUILDING

Maximum building height is around 10.25 metres for the warehouse extension component (note the overall building is approximately 43 metres at the mill tower and this would not change). The complex bagging expansion through the roof of the warehouse is 13.66 metres.

Proposed height of the additional warehouse building ranges from around 8.03 metres to around 10.25 metres to be incorporated into the existing roof slope and elevation. The small office on the western side of the building would be around 2.3 metres above ground level. The proposed height of the complex bagging mezzanine ranges from around 12.60 metres to around 13.66 metres from ground level, or 4.57 metres above the existing warehouse roof plain.

The proposed Test Kitchen involves the refurbishment of an existing meeting room in the Reception/Office building, and does not result in any external changes to the external façade or fenestration, other than a new extract fan and make-up air louvres.

Additional traffic movements would include around 4 - 6 trucks per day (28-42 per week) and 10 additional employee vehicles.

A schedule of external finishes is provided in the elevations plan in Appendix A (Drawing No. AR-A-0401). Finishes have been selected to be neutral colours in keeping with the existing buildings including:

- External wall Shale Grey colorbond
- Roof sheeting Surfmist colorbond
- Door, door frame, window and window frame Iron Stone.

3.2.2 EMPLOYEES

Post-construction - 10 additional staff.

Construction - around 30 construction jobs would be generated.

3.2.3 PRODUCTION INCREASE

The existing volume of material handled at the facility is estimated at between 250,000 and 300,000 tonnes annually. This amount is proposed to increase by 3,900 tonnes annually (an additional 15 tonnes handled per day).

3.2.4 WASTEWATER MANAGEMENT

The current domestic wastewater treatment system would need to manage wastewater from an additional 10 staff. This would require an additional $500m^2$ in irrigation area to a total irrigation area of $1,750m^2$.

The proposal would generate 6,000 litres per day of process wastewater that would require a new wastewater management system and disposal area.

3.2.5 MODIFICATION TO CONDITIONS

It is also requested that as part of modifying the existing consent Conditions 2.3 and 2.5 be modified.

Condition 2.3 provides the development must not exceed maximum allowable noise contribution limits specified in Table 1 of that consent. Receivers 4 (390 Picton Road, Maldon) [location 1 in the Compliance Survey (SLR, 2019)] and 2 (300 Picton Road, Maldon) [location 5 in the Compliance Survey (SLR, 2019)] noted in Table 1 of the consent are now on land zoned IN1 General Industrial and we request an 5dB be added to the allowable noise contribution limits for these receivers.

Condition 2.5 requires noise measurements at the most affected point within residential boundaries and we request these locations be modified (see Section 5.6.7).

3.3 NEED FOR THE MODIFICATION

The proposed expansion of Allied Pinnacle's Picton flour and maize mill would enable the facility to manufacture a range of bakery pre-mixes, which is key to achieving goals within the growth strategy of Allied Pinnacle.

The Picton Mill has been identified by Allied Pinnacle as the ideal location for the bakery pre-mix plant due to the available space within the facility to layout the proposed bakery pre-mix work centre to world class standards.

Allied Pinnacle's Picton Mill is a strategic facility within the Australian Milling footprint, as it has available space to grow within Milling and Bakery Pre-mixes. This would provide the opportunity for employment for local communities, which are very important to the Allied Pinnacle business.

4 STATUTORY PLANNING

4.1 COMMONWEALTH LEGISLATION

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a national framework for environmental protection and management of nationally and internationally important flora, fauna, ecological communities and heritage places. Part 3 of the Act lists nine Matters of National Environmental Significance (MNES) that may require approval from the Commonwealth Minister for the Environment.

An action taken by any person on Commonwealth land that is likely to have a significant impact on the environment (Section 26(1)) or an action taken by any person outside of Commonwealth land that is likely to have a significant impact on MNES (Section 26(2)) may require approval from the Commonwealth Minister for the Environment.

The proposal is minor and would occur on previously disturbed land and therefore is not likely to have a significant impact on any MNES and referral under the EPBC Act is not required.

4.2 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

The EP&A Act is the principal Act relating to development in New South Wales. The Act allows for development to occur as exempt, with consent and without consent. Existing development of the site was approved under the former Part 4 of the EP&A Act. The proposed modification is seeking approval under Section 4.55(1A) of the EP&A Act to extend the existing building to the northwest. Section 4.55(1A) requires the consent authority to consider matters identified in Table 4.1.

MATTER	RESPONSE	SECTION WHERE ADDRESSED
Consent authority is satisfied the proposed modification is of minimal environmental impact.	The proposed development is an extension of an existing approved facility on a part of the site that has been disturbed by previous activities. As outlined in this modification report and specialist investigations in Section 5, the proposal would result in minimal environmental impact.	This modification report, particularly Section 5.
Consent authority is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified (if at all).	The proposed building is shown in the architectural plans (Appendix A) and described in Section 3. The modification is an extension to the existing building and is associated with existing approved use at the site and as such is considered substantially the same development as approved under DA-318-12-2004.	Section 2 and 3.

 Table 4.1
 Section 4.55(1A) matters for consideration

MATTER	RESPONSE	SECTION WHERE ADDRESSED
 Consent authority has notified the application in accordance with— i the regulations, if the regulations so require, or ii a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent. 	Allied Pinnacle continues to seek to work with adjoining land owners and the broader community and would welcome comment on the proposed modification.	See Appendix B for a copy of the letter sent to adjoining properties to notify them of the proposal.
Consent authority has considered any submissions made concerning the proposed modification within the period prescribed by the regulations or provided by the development control plan, as the case may be	Allied Pinnacle would work with NSW DPIE to address any submissions received in relation to the proposed modification.	
Matters referred to in section 4.15(1) as are of relevance to the development the subject of the application. The consent authority must also take into consideration the reasons given by the consent authority for the grant of the consent that is sought to be modified	Addressed in Section 6.	Section 6.

4.3 OTHER NSW LEGISLATION

Other NSW legislation relevant to the proposal are outlined in Table 4.2.

Table 4.2 Other NSW legislation

LEGISLATION	PURPOSE	RELEVANCE TO THE PROPOSAL AND APPROVAL REQUIREMENTS
Biodiversity	The Biodiversity Conservation Act 2016 (BC Act)	The proposed building extension would be
Conservation Act	aims to maintain a healthy, productive and resilient	located in an existing disturbed area and would
2016	environment for the well-being of the community.	not require clearing of vegetation.
Coal Mine	The object of this Act is to provide for a fair,	The proposed building extension would be
Subsidence	efficient and sustainable compensation framework	located in the Wilton Mine Subsidence District
Compensation	for dealing with the impacts of coal mine	and would be referred to Subsidence Advisory
Act 2017	subsidence.	NSW.
Heritage Act 1977	The Heritage Act 1977 (Heritage Act) is administered by the Heritage Council, under delegation by Heritage NSW within the Department of Premier and Cabinet (DPC).	The proposed building extension would be located in an existing disturbed area and would not impact on items of non-Aboriginal heritage.

LEGISLATION	PURPOSE	RELEVANCE TO THE PROPOSAL AND APPROVAL REQUIREMENTS
National Parks and Wildlife Act 1974	The National Parks and Wildlife Act 1974 aims to conserve nature and objects, places or features of cultural value. An Aboriginal Heritage Impact Permit (AHIP) is required for any activities likely to have an impact on Aboriginal objects or Places or cause land to be disturbed for the purposes of discovering an Aboriginal object.	An Aboriginal Heritage Due Diligence Assessment has been completed for the proposal (see Section 5.2). An AHIP would not be required for the proposal.
Protection of the Environment Operations Act 1997 (POEO Act)	The POEO Act provides for issuing environment protection licences (EPLs).	Allied Pinnacle currently hold an EPL for the site (EPL 12498) for 'general agricultural processing'. The EPL provides for 250,000 to 300,000 tonnes of general agricultural processing.
		existing activities at the site and would not require changes to the EPL processing limits.
Water Management Act 2000	Works within 40 metres of a waterway generally require a Controlled Activity Approval (Section 91).	The proposal would be located greater than 40 metres from the unnamed watercourse to the north. A controlled activity approval would not be required.

4.4 WOLLONDILLY LEP 2011

Relevant clauses of the Wollondilly Local Environmental Plan 2011 (LEP 2011) are presented in Table 4.3.

Table 4.3 Wollondilly LEP 2011

CLAUSE	CONSISTENCY	
1.2 Aims	The proposal is in keeping with the aims of the LEP and would allow modification of an existing approved land use.	
2.1 Land use zone	The site is zoned E2 – Environmental Conservation, IN1 – General Industrial and IN3 – Heavy Industrial. The proposal would be located in the IN3 zone.	
	Agricultural produce industries are permitted with consent in the IN3 zone. In addition, the proposal would modify an existing approved land use.	
2.3 Zone objectives	The proposal would allow for modification of an existing approved flour and maize mill that is in keeping with objectives of the zone.	
4.3 Height of buildings	There is no maximum height of buildings in the LEP for this site. The proposed maximum building height is around 10.25 metres for the warehouse extension component (note the overall building is approximately 43 metres at the mill tower and this would not change). The proposed height of the complex bagging mezzanine ranges from around 12.60 metres to around 13.66 metres from ground level, or 4.57 metres above the existing warehouse roof plain.	
4.4 Floor space ratio	There is no maximum floor space ratio in the LEP for this site. The minor increase in floor area on such a large site would have negligible impact.	

CLAUSE	CONSISTENCY
4.6 Exceptions to development standards	No exceptions to development standards are considered necessary.
5.10 Heritage conservation	The Aboriginal Cultural Heritage Due Diligence (see Appendix C and Appendix D) concluded the 'project may proceed with caution' (see Section 5.2)
7.2 Biodiversity protection	The proposed building extension would occur on the existing hardstand area to the northwest of the existing building. Vegetation is not required to be cleared for the proposal.
7.3 Water protection	An unnamed watercourse is located around 60 metres from the proposed building footprint and appropriate erosion and sediment control would be in place during construction.
7.5 Earthworks	Around 410 tonnes of bulk and detailed excavation would be required. The maximum cut and fill would be around 400 millimetres.
Source: Wollondilly I	Local Environmental Plan 2011

4.5 WOLLONDILLY DCP 2016

Relevant clauses of the Wollondilly Development Control Plan 2016 (DCP 2016) are presented in Table 4.4.

Table 4.4 DCP 2016

VOLUME AND PART	CONTROLS	CONSISTENCY
Volume 1 Part 7 – Aboriginal heritage	An indigenous heritage and archaeological report must be prepared for any development application on land which contains a known Aboriginal object or Aboriginal place of heritage significance. The report must be prepared by a suitably qualified archaeologist. The report must be prepared in accordance with the Code of Practice for Archaeological Investigation of Aboriginal objects in NSW. A report may also be required at the discretion of the assessing officer.	The Aboriginal Cultural Heritage Due Diligence (see Appendix C and Appendix D) concluded the 'project may proceed with caution' (see Section 5.2)
Volume 1 Part 9 – Environmental protection	Development carried out on areas mapped as 'sensitive land' on the Natural Resources – Biodiversity Map and the Natural Resources Water Map under Wollondilly Local Environmental Plan, 2011 shall occur so as to either avoid, minimise or mitigate any adverse impact as detailed in Clause 7.2 and 7.3 of Wollondilly Local Environmental Plan 2011.	The site is identified as sensitive land; however, the proposed building extension would be located on land that has previously been disturbed and would not impact vegetation. Furthermore, the proposed building extension would be connected to the existing stormwater management system. A stormwater drainage concept plan is provided in Appendix A (see Drawing C-1-GF-01)

VOLUME AND PART	CONTROLS	CONSISTENCY	
Volume 1 Part 10 – Tree removal	 In this section a tree is considered to be a tree or shrub which meets one of the following: a is greater than 3 metres in height; or b The trunk has a circumference of 450mm at 1 metre above ground level; or c has a branch span of greater than 3 metres. 	The proposed building extension would not require removal of any trees.	
Volume 1 Part 11 – Landscaping	Tabulated species in the DCP are the recommended plant species for the various localities in the Shire.	The proposal would not impact on existing landscaping and is a minor extension that would not necessitate additional landscaping.	
Volume 7 Part 2			
2.1 Building setbacks	 Front setbacks 30 metres from an arterial road 10 metres all other roads. Side and rear setbacks Nil setback required except as provided by this table and subject to bushfire and water course separations. 	The proposal is a minor addition and would comply with building setback requirements.	
2.2 Building design	 Buildings must not occupy more than 50% of the site area. Office floor space and associated rooms used for administrative purposes must occupy no greater than 30% of the gross floor area. Street facades and visually prominent elements of any structure must be articulated to minimise their impact on the streetscape. Loading areas, driveways, rubbish, storage and rooftop equipment must not be located adjacent to residential zones. External and security lighting should be positioned to avoid light spillage to nearby nonindustrial development. 	The proposal is a minor addition that would be in keeping with the existing development. Finishes and colours would be in neutral colours and would match the existing development. The Landscape and Visual Impact Assessment (Appendix E) found that considering the scale and location of the expansion, potential visual impacts are low, and there is no need for any further visual mitigation. The assessment also supported the notion that the colours selected for the proposed addition should complement the existing shed colour.	

VOLUME AND PART	CONTROLS	CONSISTENCY
2.3 Parking and access	1 Car parking, manoeuvring areas, driveways, access, signposting and loading bays must be designed in accordance with Council's Design Specification.	Allied Pinnacle are proposing the addition of 15 parking spaces to accommodate the increase of 10 staff
	2 Vehicles are to enter and leave the subject site in a forward direction.	that would result from the expansion of the mill site. This increase in parking would create a total of 49
	3 Where through vehicle travel paths are not able to be provided (for example, where a zero setback is proposed) all lots must provide sufficient level space on-site for rigid and articulated vehicle turning areas. This space must be unobstructed and clear of drainage lines, power poles and parking spaces.	parking spaces, including one disabled parking space while also allowing for additional visitor spaces.
	4 The number of parking spaces required for industrial uses is detailed below in Table 1. The RMS Guide to Traffic Generating Developments will also be referred to when determining traffic requirements for certain uses.	
	Rural industries	
	Traffic study required unless low scale (to be determined by the assessing officer).	
2.4 Signage	1 All signage must be contained within the subject site and must be limited to information that directly relates to the use of the site.	No additional signage is proposed.
	2 The number and content of signs is to be minimised to prevent visual clutter and in this respect multi-unit developments must contain one free standing sign at the front of the development which details all relevant information about the premises.	
	3 Signage must be designed as an integral part of the design of the overall development.	
	4 Directory boards at the entrance to a multi-unit industrial development is preferred to individual signage.	
2.5 Open storage areas	1 Land between any road and the façade of any building or visible from a public road, must not be used for the storage, sale or display of goods.	No open storage areas are proposed.
	2 Areas used for storage must be suitably screened.	
	3 Dedicated open storage areas must be appropriately drained and constructed in suitable materials to prevent soil disturbance.	
	4 External storage of unregistered vehicles, vehicle parts, used building materials, scrap materials or other industrial waste is not permitted, except for sites which support emergency services facilities or tow truck storage yards.	

VOLUME AND PART	CONTROLS	CONSISTENCY
2.6 Landscaping	1 All new development must provide a minimum 2.5 m wide landscape strip which must be suitably landscaped and maintained, across the street frontage of any site (excluding access ways).	The proposal would not impact on existing landscaping and is a minor extension that would not necessitate additional landscaping.
	2 Edging is to be provided to retain mulch, enable mowing if necessary and to protect the landscaping from damage by vehicles.	
	5 All landscaping areas must be installed and with an appropriate management regime in place prior to use of the site.	
	6 Additions to existing industrial buildings or new ancillary buildings and works are not permitted to encroach on landscaping.	
	7 Provision must be made for shade trees in outdoor off- street parking areas and be planted to a minimum of 1 shade tree per 10 car spaces. Landscaping areas for these trees must be a minimum of 2 metres wide and allow for deep soil planting.	
	8 For rear and side setbacks, where a development directly adjoins a zone other than industrial (known as the interface zone) a 2.5 metre landscaped area must be provided.	
	9 Where practical utilise species that are endemic to the local area. Refer to Council's Recommended Planting Species List in Volume 1 of this DCP (Section 11.2, Table 1-7).	
2.7 Fencing	1 Fencing within industrial areas must be no greater than or equal to 1.8 m in height along property boundaries and within properties.	No new fencing is proposed.
	2 Where provided, front fencing must be located behind the required landscaped area setback.	

VOLUME AND PART	CONTROLS	CONSISTENCY
2.8 Waste management	Every development must include a designated general waste/recycling storage area or room(s) constructed in accordance with the requirements of the Building Code of Australia (BCA) and designed in accordance with the requirements below), as well as designated storage areas for industrial waste streams (designed in accordance with specific waste laws/protocols).	 Existing solid waste management arrangements would be utilised for the proposal. Existing waste management arrangements include: A cardboard compactor, which is located within the building onsite. Pails, for storage of milling material, are accumulated externally to the building onsite and are collected for offsite disposal by a commercial waste company. General waste is accumulated within skip bins at the western side of the building and is collected for offsite disposal by a commercial waste company. Chaff is accumulated in bins and commercially collected for utilisation by other industries. Additional waste that may be generated by the proposal would include paper bags, used to transport ingredients, which would be recycled within these existing waste arrangements. Process and domestic wastewater to be produced onsite would be handled, treated and disposed of in accordance with the onsite wastewater assessment report prepared for the modification. This report is included as Appendix F.
2.9 Stormwater management	 For all development in existing or proposed urban areas consent must not be granted for development unless the assessing officer is satisfied that: a the stormwater management system includes all reasonable management actions to minimise impacts on and contribute to the achievement or protection of relevant environmental values b water sensitive urban design principles* are incorporated into the design of the development, and Page 11 of 34 Development Control Plan 2016 Volume 7 – Industry and Infrastructure c the stormwater management system complies with Council's requirements. 	The proposed building extension would be connected to the existing stormwater management system. A stormwater drainage concept plan is provided in Appendix A (see Drawing C-1-GF-01).

VOLUME AND PART	CONTROLS	CONSISTENCY	
2.10 Ecological sustainability and energy conservation	1 Any development application for industrial development on land affected by this DCP must be supported by documentation which identifies how the proposed land use will meet the objectives of cleaner production, conservation and minimisation of resources and waste production.	All new plumbing fixtures for the proposed single toilet to be installed would be to best practice Water Efficiency Labelling and Standards (WELS) star ratings. The proposed lavatory would have a minimum 4-st	
	2 A Sustainability Assessment is required to demonstrate where viable ecologically sustainable measures are proposed.	WELS rating, and taps to be installed would have a minimum 6-star WELS rating.	
	3 Where necessary demonstrate adequate site restoration, rehabilitation or remediation measures for the site.	Air conditioning to be installed within the proposed production areas would be limited to individual worker	
	4 Connection to recycled water is required if serviced by a dual reticulation system for non-potable uses (i.e. toilet flushing, irrigation, car washing, firefighting and certain industrial purposes where applicable).	office and test kitchen spaces would be air-conditioned.	
	5 Installation of 3 star WELS rated water efficient showerheads, 6 star WELS rated water tap outlets, 5 star WELS rated urinals and 4 star WELS rated toilet cisterns are required for all amenities.		
2.11 Noise	 Noise sources must be located away from residential areas and noise mitigation measures such as fencing, earth mounding and other acoustic measures will be considered within the development. These measures must not compromise any other provision in this Development Control Plan or on the achievement of minimum solar access requirements of neighbouring properties. 	A Construction Noise and Vibration Assessment has been prepared (Appendix G). The assessment found that noise levels are predicted to comply with relevant noise management levels (NMLs) where works are conducted during Standard Hours, with a minor exceedance	
	2 Development is required to comply with the NSW Industrial Noise Policy and may require noise attenuation measures specified by an independent acoustic consultant.	identified at one receiver. Where works occur outside Standard Hours, noise levels are predicted to exceed relevant NMLs at the nearest sensitive residential receivers	
		A high-level investigation into proposal-related construction traffic has indicated that noise impacts are expected to comply with Road Noise Policy (NSW EPA, 2011) criteria. Noise mitigation and management measures have been outlined to reduce the potential noise impacts from construction noise and vibration associated with the proposal.	

VOLUME AND PART	CONTROLS	CONSISTENCY
2.12 Open space	 Where an individual premises or an industrial complex (or equivalent) is employing 5 or more staff in total, an area of open space must be provided: a which is readily accessible, and b contains seating, solar access and shade The open space area provided in accordance with control 1 above can be included as part of any landscaped area of the site. 	The proposal is a minor addition that would be in keeping with the existing development and would not significantly impact on open space.
Volume 7 – Part 3 – Specific land use controls. 3.1 Rural industry and depots	 Location and building setbacks Buildings used for rural industries must not to be located in visually prominent locations such as ridgelines and must not be erected on slopes in excess of 15 degrees. Certain industries may require a more significant setback to be determined by the assessing officer. Where industries are proposed in rural zones the minimum requirements are (as per igloos). Building colour The colour of a building used for the purpose of a rural industry must match or blend with the colour of existing structures and buildings on the property and must be in keeping with the natural features of the surrounding environment. Parking and Access 	The proposal is a minor addition that would be in keeping with the existing development. Finishes and colours would be in neutral colours and would match the existing development. The Landscape and Visual Impact Assessment is found in Appendix E.
	1 Site access roads in rural areas may need to be sealed depending on the nature of the proposal.	



5 ENVIRONMENTAL IMPACT ASSESSMENT

5.1 INTRODUCTION

Key environmental issues are addressed through specialist design and reporting and discussed below. These key environmental issues are:

- Aboriginal heritage
- air quality
- hazards
- landscape and visual impact
- noise and vibration
- traffic
- wastewater.

5.2 ABORIGINAL HERITAGE

An Aboriginal Cultural Heritage Due Diligence Assessment (ACHDDA) was prepared in accordance with the *National Parks and Wildlife Act 1974* (NPW Act) to determine whether the proposal involve activities that may harm Aboriginal objects or places (see Appendix C).

The new wastewater treatment system to treat process wastewater onsite was not included in the original ACHDDA. As such, an additional ACHHDA was prepared to assess the potential impact of the warehouse expansion, including process wastewater treatment system, to Aboriginal heritage values onsite (Appendix D). The additional ACHDDA was provided to Glenda Chalker a known associate of the Tharawal Local Aboriginal Land Council (LALC) for review. Response of this consultation is included within Appendix D.

The ACHDD assessments have been summarised in the following sections.

5.2.1 EXISTING ENVIRONMENT

The ACHDD assessments involved desktop review of relevant Aboriginal heritage databases and existing assessments undertaken at the site and surrounds. A search of the Aboriginal heritage information management system (AHIMS) database was conducted on 5 August 2021 that identified 85 Aboriginal archaeological sites within a four-kilometre search area centred on the proposal. Two sites were identified as duplicates; however, these are not within the property boundary.

Eight of the listed sites were recorded within the property boundary of the Allied Pinnacle facility (now identified as Lot 1 DP1128013). These sites form part of a previous investigation at the property during the construction of the mill (Austral, 2004). Discrepancies were noted between the AHIMS coordinates and those recorded during historical survey and assessment of the entire Allied Pinnacle Property by Austral (Austral; 2004; Austral; 2007). With adjustment of the coordinates, three sites were found to be located within the boundaries of the current study area: AMP PAD 1 (AHIMS # 52-2-3220), AMP OCS 1 (AHIMS # 52-2-3217) and AMP IF 4 (AHIMS # 52-2-3215).

It is noted that items AMP OCS 1 (AHIMS # 52-2-3217) and AMP IF 4 (AHIMS # 52-2-3215) identified in desktop searches were to be collected as part of a Section 90 Consent to Destroy under historical survey, but they were not able to be relocated during the salvage investigation (Austral, 2007, p.25).

Five of the identified AHIMS sites within the property boundary, outside of the study area, were historically included as part of protected Aboriginal Heritage Cultural Zones following previous assessment (Austral, 2004; Austral, 2007). Four sites (AMP IF 1 (AHIMS # 52-2-3218), AMP IF 3 (AHIMS # 52-2-3214), AMP IF 5 (AHIMS # 52-2-3216), and AMP

IF 2 (AHIMS # 52-2-3214)) are protected within an Aboriginal Heritage Cultural Zone (AHCZ A). Another site (AMP ST 1 (AHIMS # 52-2-3219)), a modified tree found on an elevated landform, was outlined by an Aboriginal Heritage Cultural Zone (ACHZ B). Conservation requirements of these areas have continued to the present.

The location of AHIMS sites surrounding the proposal site is depicted in Figure 5.1.



Source:Austral Archaeology, 2021Figure 5.1AHIMS Sites within Lot 1 DP 1128013

5.2.2 POTENTIAL IMPACTS

The area of potential archaeological deposit (PAD) known as AMP PAD 1 (AHIMS # 52-2-3220) was found to be located within the boundaries of the current study area. The PAD was salvaged by Austral in 2007. In total, 171 artefacts were recovered from the grassy plateau, adjacent to a gentle slope. The majority of this assemblage comprised unretouched flakes, with nearly two thirds of all artefacts unbroken. The nature of the artefacts indicates the site was Late Holocene of between 500 to 5,000 years before present (Austral, 2007, p.58).

AMP OCS 1 (AHIMS # 52-2-3217) and AMP IF 4 (AHIMS # 52-2-3215) were also identified as being located within the study area, however these sites have been unable to be located at the property under historical salvage investigations.

BUILDING EXTENSION

In order to ground truth the desktop assessment undertaken for the initial ACHDDA (Appendix C), a visual inspection of the study area was undertaken on 6 August 2021 by an Austral archaeologist, in accordance with requirements 5 to 8 of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010). This inspection determined that overall, the study area holds little potential for Aboriginal archaeological deposit due to the extensive development that has disturbed the area. Prior investigations identified AMP PAD 1 (AHIMS # 52-2-3220) and subsequently salvaged it. As the proposed works would occur within the grassed area and would utilise existing drainage infrastructure, the expansion of the facility would have minimal impacts on any intact natural deposits still present within the study area.

It was concluded that further assessment for the warehouse building expansion is not warranted, and the project may proceed with caution.

WASTEWATER TREATMENT SYSTEM

In order to ground truth the desktop assessment undertaken for the additional ACHDDA, a visual inspection of the study area was undertaken on 21 October 2021 by an Austral archaeologist and Glenda Chalker from the Cubbitch Barta Native Title Claimants Aboriginal Corporation, an associate of the Tharawal LALC. The visual inspection consisted of a systematic survey of the study area on foot to identify and record any Aboriginal archaeological sites visible on the surface or areas of Aboriginal archaeological potential and cultural sensitivity. The visual inspection conformed to requirements 5 to 8 of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010).

Three survey units were identified within the study area. Visibility throughout the study area was overall poor, as the majority of the area was covered in grass or bitumen.

The eastern section of the study area is where the proposed irrigation system would be installed. It consisted of a gentle slope and no areas of exposure were identified. Disturbance was evident in the most eastern section, where current irrigation infrastructure (including sub-surface plumbing and water tanks) is present. The area is bordered to the north by recent tree plantings. Adjacent to the tree plantings sediment accumulation and water pooling was evident. This type of disturbance, however, is surface deep and does not include sub-surface material.

The central section of the study area consisted of the embankment which lines the north side of the road leading into the mill. It was also covered by grass with no exposures. This embankment represents a completely disturbed landform, and the location of previously identified AMP OCS 1 (AHIMS # 52-2-3217) and AMP IF 4 (52-2-3215) are also situated within this embankment. These sites were destroyed under Aboriginal Heritage Impact Permit (AHIP) # 2508 issued on 15 August 2006.

The western section of the study area consists of the gentle slope associated with the grassy plateau, previously investigated (Appendix C). It had low levels of visibility due to consistent grass cover. This area is highly disturbed due to the existing subterranean tanks in the area, surface clearance, continued grass cutting, and the association of this area with nearby major developments including the railway line, the mill and the embankment.

Patches of exposure were identified in the gentle slope landform in the southwest corner of the study area, adjacent to the current mill building. These patches were the results of erosional processes linked with the heavy use of the site. A depression in the ground on a north to south alignment was observed on the gentle slope and was identified as the location of an old service line, as well as the location of the new drainage line for the proposed works.

No Aboriginal archaeological material about any of the previously identified sites or to any new sites was located during the course of the survey. This in combination with the extensive disturbance relating to the construction of the mill has resulted in the area holding low archaeological potential.

The project may proceed with caution if appropriate mitigation strategies are implemented.

ADDITIONAL CONSIDERATIONS

During site inspection (and formally included in Appendix D), Glenda Chalker noted that there is currently an accumulation of water around the base of the scar tree site within Aboriginal Heritage Cultural Zone (ACHZ B). Glenda has expressed concern that further treatment of water upslope from the Aboriginal Heritage Cultural Zone (ACHZ B) may impact the scar tree site. As such, any run-off should be redirected from the scar tree site, by creation of mounds or similar.

5.2.3 MITIGATION MEASURES

The following recommended control measures would be implemented during construction and operation of the proposal to reduce potential impacts to Aboriginal heritage values:

- The project may proceed with caution subject to additional investigation to assess potential impacts to Aboriginal heritage values onsite associated with the proposed process wastewater treatment system.
- The installation of plumbing connecting all aspects of this wastewater management system should re-use the
 previous infrastructure when plausible. The northern embankment lining the access road to the mill should be
 utilised for the installation of new connecting plumbing, so as to avoid disturbance of 'Aboriginal Heritage
 Conservation Zone B'.
- Considerations for the indirect disturbance to 'Aboriginal Heritage Conservation B' in the form of increased run-off and water pooling at the base of the identified scarred tree (AMP ST 1 (AHIMS # 52-2-3219), should be made and planned for. This can include the construction of a mound lining the fence to the west of the proposed irrigation area, so as to direct run-off away from AMP ST 1 (AHIMS # 52-2-3219).
- All Aboriginal objects and Places are protected under the NPW Act. It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by Heritage NSW. Should any Aboriginal objects be encountered during works associated with this proposal, works must cease in the vicinity and the find should not be moved until assessed by a qualified archaeologist. If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations which will include notifying Heritage NSW and Aboriginal stakeholders.
- Aboriginal ancestral remains may be found in a variety of landscapes in NSW, including middens and sandy or soft sedimentary soils. If any suspected human remains are discovered during any activity, you must:
 - immediately cease all work at that location and not further move or disturb the remains
 - notify the NSW Police and Heritage NSW's Environmental Line on 131 555 as soon as practicable and provide details of the remains and their location
 - not recommence work at that location unless authorised in writing by NSW Environment, Energy and Science.

5.3 AIR QUALITY

5.3.1 INTRODUCTION

An Air Quality Impact Assessment (AQIA) has been prepared for the proposed extension of the Allied Pinnacle Flour Mill and is included as Appendix H. The AQIA has been prepared in accordance with the *National Environment Protection Council Act 1994* (NEPC Act), the National Environment Protection (Ambient Air Quality) Measure (Air NEPM), *Protection of the Environment Operations Act 1997*, the Protection of Environment Operations (Clean Air) Regulation 2010 ([POEO (Clean Air) Regulation], NSW EPA's Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales 2016 (Approved Methods) and Allied Pinnacle's Environment Protection Licence (EPL 12498).

5.3.2 EXISTING ENVIRONMENT

The existing facility is situated in a rural environment with the surrounding area comprising of single storey dwellings, small scale agriculture and the Boral Cements approximately 600 metres to the west. The proposal site is located on flat cleared land at an elevation of 142 metres Australian Height Datum (mAHD), between Picton Road and the Main Southern Railway Line. The area to the north and east of Picton Road is rural comprising of flat valleys rising to elevated ridges (over 250 mAHD) forming part of the Razorback Ridge. This area has been partially cleared and traditionally used for grazing pastures.

There are several residences located in undulating areas, in proximity to the proposal site. Sensitive receptors (as defined in Appendix H) in the vicinity of the proposal were identified as five residential, one commercial and two industrial receptors. The nearest residential receptor is located approximately 400 metres to the southeast of the proposal site. Sensitive receptors are summarised in Table 5.1 and illustrated in Figure 3.1 of Appendix H.

RECEPTOR ID	ADDRESS	RECEPTOR TYPE	DISTANCE TO PROPOSAL	DIRECTION TO PROPOSAL
R1	1404 Menangle Road, Maldon	Residential	590 m	North
R2	305 Picton Road, Maldon	Residential/Shed	620 m	North
R3	460 Wilton Park Road	Residential	1,190 m	South-west
R4	Maldon Hatchery	Commercial	570 m	North-east
R5	300 Picton Road (Fitzsimmons Diesels)	Industrial	440 m	North-west
R6	Boral Cement Works	Industrial	630 m	West
R7	Off Picton Road	Residential	1,585 m	South-east
R8	390 Picton Road, Maldon	Residential	400 m	South-east

 Table 5.1
 Nearest sensitive receptors to the proposal site

To the south of the site, beyond the railway line, the landscape includes open pastures, transitioning to woodland near the Nepean River with the topography dropping to around 80 mAHD. A large cement plant (Boral Cement Works) is located approximately 600 metres to the west of the proposal site, also situated on flat land, zoned for heavy industry. With the exception of the cement plant, surrounding land uses are generally rural.

Climate statistical data collected at the Bureau of Meteorology (BoM) Camden Airport automatic weather station (AWS) was reviewed to evaluate the local meteorological conditions at the site, which are important for determining the direction and rate at which emissions from a source disperses. Wind speed and wind direction from 2016 to 2020 inclusive were analysed. The data indicates a range of wind directions at the AWS with south-westerly and southerly

directions predominating across the five years, a high calm wind frequency of 29.2 per cent and an average wind speed of 2.3 metres per second.

The predominant land use of the area is agricultural with single storey dwellings scattered throughout the area. The National Pollutant Inventory (NPI) database review indicated there were fourteen industrial facilities within the Wollondilly Local Government Area (LGA) that reported emissions to the NPI for the 2018/2019 reporting period. These included the Boral Cement Ltd plant located approximately 600 metres to the west of the proposal site. This is likely to be a contributor to the local airshed, however there are no other significant industrial sources of air emission near to the proposal site.

The main industrial and non-industrial (diffuse) air emission sources contributing to the local airshed include:

- traffic using the local road networks
- Boral Cement Ltd located to the west
- wind-blown dust
- burning (fuel reduction, regeneration and agricultural) and wildfires
- domestic and commercial solvents/aerosols
- domestic solid and liquid fuel burning
- residential activities (e.g., lawnmowers and barbecues)
- agricultural activities
- railway operations
- industrial activities (e.g., poultry farming, coal mining, electricity generation, gas supply, cement, lime, plaster and concrete product manufacturing, wastewater treatment plants).

These sources give rise to pollutant emissions relevant to the proposal including total suspended particulates, deposited dust, PM_{10} , and $PM_{2.5}$, NO_x , CO and SO_2 , volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs) and odour.

There is no nearby ambient air quality monitoring station (AAQMS) to the proposal. Ambient air monitoring data collected at Bargo, the nearest operational AAQMS to the proposal, for the past five years (2016 to 2020 inclusive) were analysed and are presented in the AQIA (Appendix H) as broadly representative of the proposal site. The results indicate that the annual average PM_{10} concentrations were compliant with the relevant Air NEPM standard, while there were multiple exceedances of the 24-hour average PM_{10} Air NEPM standards most likely due primarily to bushfires. Except for 2019, there was no exceedances of the annual $PM_{2.5}$ Air NEPM standard for all years analysed. Except for 2017, there were multiple exceedances of the 24-hour $PM_{2.5}$ Air NEPM standard for the years 2018 to 2020, with a maximum of 20 daily exceedances in 2019 due to bushfire smoke. Overall, the air quality at the Bargo AAQMS is broadly representative of that experienced at the proposal site.

5.3.3 IMPACT ASSESSMENT

The main air emissions generated during construction and operation of the proposal are expected to be dust, combustion products and odour. Given the small-scale nature of the construction works, with emissions likely to be intermittent and short-term and expected very low emissions likely to be generated during the operation phase, a risk based qualitative assessment was considered appropriate to evaluate the potential risk of adverse air quality impacts for the proposal. The AQIA (Appendix H) outlines the detailed methodology for assessment of potential air quality impacts as a result of the proposal.

The main types of emissions likely to be generated during construction included dust and combustion emissions. Dust is expected to be generated from site establishment and demolition works; excavations and earthworks; construction of buildings; vehicle movements on paved and unpaved roads/routes; and from wind erosion at exposed areas and stockpiles. Combustion emissions would likely be associated with engine fuel of on-site plant, equipment and vehicles.

Potential air emissions sources during operations may include odour emissions from the test kitchen hood and from the upgraded wastewater management system. Combustion emissions may be associated with the gas flue powering the hot water system to be installed with the proposed expansion.

A risk-based approach was used for assessing the potential impacts of air emissions during construction and operation phases of the proposal based on the guidance presented in section 4.4 of Appendix H. Initial risk ratings were assigned to each potential air emission source and were deemed to have a low to medium risk rating. With proposed mitigation measures in place the generation of dust emission during demolition, excavation and earthworks would have a low residual risk. All other construction activities (e.g. building construction, vehicles on paved road, wind erosion) would pose a negligible risk to the receiving environment. During operations, combustion emissions from the hot water system flue vent would have a low residual risk with odour emissions from the test kitchen vent and the wastewater treatment system posing a negligible risk to the receiving environment.

In summary, the implementation of site-specific mitigation measures for the construction and operational phases of the proposal would minimise potential air quality impacts. As such, there would be a low to negligible impact on the nearest sensitive receptors.

5.3.4 MITIGATION MEASURES

The following site-specific mitigation measures for the construction and operational phases of the proposal would be implemented to minimise potential air quality impacts:

5.3.4.1 CONSTRUCTION PHASE

- Advise residents/sensitive receptors of any works outside of the hours outlined in EPA Policy.
- Demolition works to occur during favourable weather conditions (light winds (2 metres per second)).
- Use water sprays to minimise dust generation during demolition of walls and concrete footpaths.
- Restrict/cease activities with high dust generating potential during periods of high winds (> 10 metres per second).
- Minimise the extent of exposed and stripped surface areas within the proposal area.
- Ensure an adequate water supply on the site for effective dust suppression/mitigation, using non-potable water where
 possible and appropriate.
- Keep stockpiles small, bunded, moist or covered to minimise wind erosion. Cover/protect other areas susceptible to significant dust emissions from wind erosion.
- Locate stockpiles as far away from sensitive receptors where practicable.
- Restrict vehicle speeds to minimise wheel generated dust on unpaved roads/routes.
- Access routes clearly marked out and maintained, with designated parking and turning areas and surfaced appropriately to minimise wheel-generated dust.
- Ensure vehicles remain on designated tracks and adhere to on-site speed limits. Regular watering on unpaved surfaces and unpaved roads/routes, particularly during periods of dry and windy conditions (> 10 metres per second).
- Cover or stabilise potentially dust-generating materials during transport to, from and around the construction site.
- Limit truck loads to a vertical height no greater than 0.5 metres above the side walls of the vehicle.
- Control the speed of dumping from tip trucks.
- Maintain vehicles and equipment to facilitate efficient operation.
- Minimise diesel engine idle times i.e., excavator, bobcat, trucks.
- Avoid overloading of vehicles.

5.3.4.2 OPERATION PHASE

- Ensure the wastewater treatment plant is appropriately maintained with regular monitoring and analysis of key
 parameters i.e. total dissolved solids, total nitrogen, total phosphorous, biological oxygen demand (BOD₅) and grease
 and oil.
- The height of the test kitchen vent to be 3 metres above the height of the building to ensure adequate odour dispersion.
- Restrict vehicle speeds to minimise wheel generated dust on unpaved road.
- The height of the hot water system vent to be 3 metres above the height of the building to ensure adequate dispersion of combustion emissions.

5.4 HAZARDS

The State Environment Planning Policy No. 33 (SEPP 33) screening assessment and preliminary hazard analysis (PHA) considers risk of storage and handling of dangerous goods and control measures (see Appendix I). The PHA focuses on the warehouse extension while also taking account of the cumulative hazard from the site. The PHA considers acute safety impacts to the public due to the other risk factors identified relating to hazardous material on site.

SEPP 33 applies to any proposals that fall under the policy's definition of 'potentially hazardous industry' or potentially offensive industry' under the *Hazardous and Offensive Development Application Guidelines – Applying SEPP 33* (NSW Department of Planning, 2011). These are defined as:

- Potentially hazardous industry' 'when all locational, technical, operational and organizational safeguards are employed continues to pose a significant risk.' (NSW Department of Planning, 2011). Applying SEPP 33 includes a screening method, based on the quantities of dangerous goods on a site and their vehicle movements, to assist in determining if a development is likely to be potentially hazardous industry.
- 'Potentially offensive industry' the primary consideration whether the consent authority is satisfied that there are adequate safeguards to ensure that any emissions from a facility can be controlled to a level at which they are not significant. Where proposed activities do not require a license pursuant to *Protection of the Environment Operations Act 1997*, or where they do require a license but in the opinion of the environmental regulator the proponent can fully meet its license requirements, a proposal is not deemed to be 'offensive industry'.

5.4.1 EXISTING ENVIRONMENT

The SEPP33 screening assessment determined the proposal is not considered a 'potentially offensive industry'. Similarly, the aggregate storage quantities of the warehouse extension and existing premises were assessed and no storage quantities in the proposed warehouse extension or the added quantity elevate the total storage quantity above the permissible threshold.

However, based on the SEPP33 screening assessment, the existing operation is considered as 'potentially hazardous' due to the consideration of other risk factors (Appendix 2 of SEPP 33) which identified hazards outside the scope of the risk screening method. A review of these risk factors was undertaken, and two risk factor items were found to trigger a PHA, including the possible existence of dusts within confined areas and details of known past incidents involving hazardous materials and process in similar industries.

However, based on the SEPP33 screening assessment, the existing operation is considered as 'potentially hazardous' due to the consideration of other risk factors. The hazard identification exercise comprised a review of:

- vulnerable groups (operators, maintainers, contractors and the public)
- external hazards, both natural and of human origin
- possible accident scenarios, their initiating events and consequence technical and procedural safeguards.

Once all significant hazards (fires, explosions process hazards or environmental discharge) were identified, representative events and accident scenarios were carried forward for further studies.

5.4.2 POTENTIAL IMPACTS

The PHA concluded that risks would be managed by engineering and procedural controls and there is no significant offsite risk that requires further analysis. No further control measures were recommended at the PHA stage.

5.4.3 MITIGATION MEASURES

should the storage conditions or volumes change, the contents and findings in the SEPP 33 Preliminary Hazard Analysis (WSP, 2021) would be reviewed, and the risks associated with any change would be assessed and controlled.

5.5 LANDSCAPE AND VISUAL IMPACT

A landscape and visual impact assessment (LVIA) technical memorandum was prepared generally in accordance with the guidance from the *Guideline for Landscape Character and Visual Impact Assessment EIA-N04* (Transport for NSW, 2020). The LVIA was prepared on architectural plans that were still being refined.

The LVIA involved the identification of existing conditions and the visual catchment of the site, followed by assessment of potential visual impacts on viewing locations (with regard to sensitivity and magnitude of change to the view) and opportunities for mitigation. The detailed methodology of the LVIA is outlined with the memorandum attached as Appendix E of this report.

5.5.1 EXISTING CONDITIONS

5.5.1.1 LANDSCAPE CHARACTER

The proposal site is located on flat cleared land, between Picton Road and the Southern Highlands rail line, to the southeast of the town of Picton, and northwest of Wilton. The area to the north and east of Picton Road is zoned rural landscape and comprises large rural blocks with scattered houses and agricultural structures. The landform in this rural area includes flat rural valleys beside Picton Road, transitioning to elevated ridges to the north and east, forming part of the Razorback Ridge. This area has partially cleared and traditionally used for grazing pastures. There are several residences located in both flat and elevated areas, in close proximity (up to 1 kilometre) to the proposal site.

The landform at the proposal site is generally flat and low-lying. The site has been largely cleared for industrial use. There are artificial embankments and trees alongside Picton Road, which provide screening from the road and enclosure of the proposal site from the surrounding area. Further to the south of the site, beyond the railway line, the landscape includes open pastures, transitioning to woodland near the Nepean River. This woodland area is zoned for environmental conservation (Wollondilly LEP) and provides a vegetated backdrop to the mill. A large cement plant is located about 500 metres to the west of the proposal site, also on flat land zoned for heavy industry. Excluding the cement plant, surrounding land uses are generally rural.

A visual catchment of the proposal has been identified using a digital surface model combined with points on the location and at the maximum height of the proposed building extension. The visual catchment analysis shows that the visual influence of the proposal would be very limited, due to the undulating terrain and concentration of vegetation surrounding the site.

5.5.2 POTENTIAL IMPACTS

Impact levels within the LVIA have been assigned in accordance with the visual impact rating matrix within the guidance from the *Guideline for Landscape Character and Visual Impact Assessment EIA-N04* (Transport for NSW, 2020). Appendix E provides more detail on the impact assessment and existing environment.

5.5.2.1 PICTON ROAD

Picton Road is located along the north eastern boundary of the mill site, passing through industrial and rural areas. Travelling northwest towards the site, between the Nepean River and Southern Highlands rail overbridge, there are clear views across flat pasture fields to the existing mill. Generally, the existing silos are visually prominent where the mill can be seen. Picton Road is a local road, used generally by residents, workers at nearby industrial sites and visitors to the areas. It is of low visual sensitivity. The proposed extension to the building would be fully or partly screened by the existing mill building in some views from the south. Overall, there would be a low magnitude of change, to a view of low sensitivity, and a low visual impact.

5.5.2.2 MENANGLE ROAD

Travelling southwest towards the proposal site along Menangle Road, the existing flour mill is visible for around one kilometre. The mill is viewed with a foreground of pasture fields against a backdrop of woodland, alongside the Nepean River valley. The lower section of the mill is partially blocked by intervening landform and vegetation located along the road. The existing silos are prominent in the view. Menangle Road is a local road, used generally by nearby residents and their visitors. It is of low visual sensitivity. The proposal would be seen intermittently, and the proposed extension would be lower than the main building, not prominent in this view. The proposed shed extension would be visually compatible with the character of the existing mill. Overall, there would be a low magnitude of change, to views of low sensitivity, resulting in a low visual impact.

5.5.2.3 SOUTHERN HIGHLANDS RAIL LINE

The Southern Highlands rail line is located to the west of the proposal site. This rail corridor has multiple tracks, carrying both freight and passenger trains (the latter located around 60 metres from the proposal site). Views from the Southern Highlands rail line would generally be experienced by residents and visitors to the area and are of low visual sensitivity. The proposal would be seen for a short period of time as trains travel along the track and would be viewed in the context of an existing mill. While the proposed extension would be seen in close proximity, it would be lower in height than the main buildings and seen as a small addition relative to the scale of the existing larger buildings. Overall, there would be a low magnitude of change, to views of low sensitivity, and a low visual impact.

5.5.2.4 VIEWS FROM DWELLINGS ON LOWER LYING LAND TO THE NORTH AND NORTHWEST

Several residential properties on the surrounding river plain are likely to have views to the proposal site across industrial zoned land towards Carriage Creek tributary. These include:

- 300 Picton Road North of the proposal site. Located within an industrial zoned property and is generally level with the site.
- 1365 Menangle Road (former Ingham's Chickens site) Northeast of the proposal site.
- 1404 Menangle Road North of the proposal site.

Generally, from these properties there would be views across a flat partially cleared rural landscape with groups of trees along Carriage Creek tributary, alongside roads and within fields, filtering views to the existing mill. There would be other large-scale industrial uses in background of these views. The proposal would be seen in the middle ground of view and seen against a backdrop of woodland along the Nepean River valley. The lower and ground level of the proposal is likely to be screened or filtered by existing vegetation, including the trees and shrubs along Picton Road and Carriage Creek tributary. Subsequently, the proposal would be absorbed into the existing character of the mill and not alter the prevailing character of these views. Overall, there would be a low magnitude of change, and a low visual impact.

5.5.2.5 VIEWS FROM ELEVATED PROPERTIES TO THE NORTH AND NORTH EAST

Properties at 1400, 1360 and 1315 Menangle Road are likely to have views to the proposal site. There would be elevated views from these properties, across a partially cleared and undulating landscape including both rural and industrial uses. These dwellings are located around one kilometre from the proposal site. The proposal would be seen in the middle ground of these views and viewed against a backdrop of woodland along the Nepean River. The proposed shed extension would be comprise a small change to the overall building, being lower than the height of the main buildings and smaller in scale than the existing sheds. It would not rise above the vegetated ridgeline which provides a backdrop to these views or obstruct a notable portion of the surrounding rural landscape. The proposed shed extension would be visually compatible with the character of the existing mill sheds and would not appreciably alter the scale of the mill and character of this view. Overall, there would be a low magnitude of change, and a low visual impact.

5.5.2.6 CONCLUSION

The proposal would have limited visual catchment due to the intervening landform and existing vegetation. Where the proposed shed would be seen it would have a low visual impact as the proposed shed extension would be visually compatible with the character of the existing mill sheds and would not appreciably alter the prevailing character of these views.

5.5.3 MITIGATION MEASURES

As a part of the previous approval, there were two landscape treatments (L1 and L2) established at the existing mill site, to ensure that the mill is suitably screened from the existing residences and roads near the site.

The landscape treatment L1 extends along the boundary of the site with Picton Road, comprising a mound approximately two to four metres in height and approximately 30 metres wide at its widest point. Behind the mounded area, there are belts of native trees and shrubs, which are nearing maturity, and assisting in screening the mill from traffic on Picton Road, and from nearby residences along Picton and Menangle roads.

Treatment L2 is extends along a tributary of Carriage Creek, towards Picton Road, including native trees and shrubs. This area provides general screening of the mill from areas to the north and northwest of the site, include residences and views from Picton Road.

It is preferred that the colours selected for the proposed shed is a colour that would complement the existing shed colour, or a colour that recedes so that the proposal is not visually obtrusive.

5.6 NOISE AND VIBRATION

The Construction Noise and Vibration Assessment (CNVA) was conducted with reference to the Construction Noise and Vibration Strategy (CNVS) (Transport for NSW [TfNSW], 2019), the Interim Construction Noise Guideline (ICNG) (NSW Department of Environment and Climate Change, 2009) and the NSW Road Noise Policy (RNP) (NSW Department of Environment, Climate Change and Water, 2011). The complete CNVA is attached as Appendix G.

5.6.1 SENSITIVE RECEIVERS AND EXISTING ENVIRONMENT

The noise sensitive receivers nearest to the project site at 330 Picton Road, Maldon, NSW are listed in Table 5.2 and Figure 5.2. Sensitive receivers surrounding the proposal include residences, commercial and industrial areas.

RECEIVER ID	ADDRESS	RECEIVER TYPE	DISTANCE TO PROPOSAL WORKS BOUNDARY (m)
R1	1404 Menangle Road, Maldon	Residential	590 metres (north)
R2	300 Picton Road, Maldon	Residential	620 metres (north)
R3	460 Wilton Park Road	Residential	1,190 metres (southwest)
R4	390 Picton Road, Maldon	Residential	400 (southeast)
C1	Maldon Hatchery	Commercial	570 metres (northeast)
I1	Fitzsimmons Diesels	Industrial	440 metres (north)
12	Boral Cement Works	Industrial	630 metres (west)

Table 5.2 Noise sensitive receivers

(1) Minimum distance of the sensitive receiver buildings to the limits of the construction footprint.

Due to current Stay-At-Home orders to reduce the spread of COVID-19, noise monitoring was not able to be conducted. It is expected that current noise levels are likely to be considerably lower than normal levels, due to reduced traffic, and they therefore cannot be considered representative for the location, affected land uses or conditions.

WSP has adopted publicly available existing noise measurement data from past developments in the vicinity of the proposal. Noise monitoring data was adopted from historical noise monitoring completed for the Allied Pinnacle site, as reported in *Compliance Survey Operational Noise Monitoring Allied Pinnacle Picton* (SLR Consulting, 2019).

The location of nearby sensitive receivers at the site and the noise monitoring locations adopted from the compliance monitoring (SLR, 2019) are depicted in Figure 5.2.



Source: SLR Consulting, 2019

Figure 5.2 Site location and noise sensitive receivers

Project No PS124818 Allied Pinnacle Flour and Maize Mill Proposed Modification (DA-318-12-2004) Hunt Architects WSP November 2021 Page 29 Background noise levels (rating background levels [RBLs]) at noise monitoring locations are outlined in Table 5.3.

NOISE MONITORING (NM) LOCATION	BACKGROUND NOISE LEVEL (dBA RBL ¹)				
(REFERENCE IN 2019 REPORT)	DAY ²	EVENING ²	NIGHT ²		
NM01 (Location 3)	47	46	40		
NM02 (Location 4)	46	49	40		
NM03 (Location 6)	34	29	27		
NM04 (Location 2)	43	47	39		
NM05 (Location 5)	47	49	43		
NM06 (Location 1)	44	44	39		

Table 5.3 Summary of ambient noise levels from 2019 report

Source: SLR Consulting, 2019

(1) RBL – Rating Background Level. The overall single-figure background level representing each assessment period (daytime/evening/night-time) as defined in the NPfI.

(2) Time periods defined in the NPfI – Day: 7am to 6pm Monday to Saturday, 8am to 6pm Sunday; Evening: 6pm to 10pm; Night: the remaining periods.

5.6.2 CONSTRUCTION NOISE AND VIBRATION ASSESSMENT

To assess potential noise impacts during construction, four representative construction scenarios were developed based on indicative staging information. The proposal would be constructed in stages with stages occurring at different times depending on the activity. Table 5.4 presents the assessed noise generating construction scenarios based on available project information.

SCENARIO ID	STAGE
SC01	Site establishment and demolition
SC02	Excavation
SC03	Construction of buildings
SC04	Backfilling and demobilisation

 Table 5.4
 Construction stages and equipment

5.6.3 CONSTRUCTION NOISE

It is understood construction activities would occur during standard hours. However, work may occur outside standard construction hours when it is not feasible or reasonable to work within standard hours. Construction work may need to be completed outside standard construction hours to maintain a safe work environment or to minimise impacts to operational transport infrastructure and services.

Where construction work may occur outside of standard hours, noise impacts to sensitive receivers may be more severe. Subsequently, impacts to sensitive receivers near the Allied Pinnacle site have been assessed as occurring within three work periods, related to RBL periods as outlined in the ICNG. Table 5.5 outlines the CNVS assessment periods applicable to the proposal.

Table 5.5 Noise assessment periods

NAME	RATING BACKGROUND LEVEL (RBL) PERIOD	TIME PERIODS	
Standard Hours (SH)	Day	Monday to Friday – 7:00 am to 6:00 pm Saturday – 8:00 am to 1:00 pm Sunday/Public Holiday - Nil	
Out of Hours Works (OOHW) Period 1	Day	Saturday – 7:00 am to 8:00 am and 1:00 pm to 6:00 pm Sunday and public holidays – 8:00 am to 6:00 pm	
	Evening	Monday to Saturday – 6:00 pm to 10:00 pm	
Out of Hours Works Day		Sunday and public holidays $-7:00$ am to $8:00$ am	
(OOHW) Period 2	Evening	Sunday and public holidays $-6:00$ pm to 10:00 pm	
	Night	All days 10:00 pm to 7:00 am	

The CNVA outlines NML criteria and thresholds for receivers to be deemed 'noise affected' and 'highly noise affected'. The detailed methodology, based on the requirements of the ICNG, are outlined in Appendix G.

NMLs for nearby sensitive residential receivers assessed under various work periods at the site are outlined in Table 5.6.

Table 5.6 Site specific noise management levels

NCA	NOISE MANAGEMENT LEVEL dBA Leq, 15 min ¹					
	SH	OOHW 1	OOHW 2	HNA		
Residential receiver R1	57	52	45	75		
Residential receiver R2	56	51	45	75		
Residential receiver R3	44	39	37	75		
Residential receiver R4	54	49	44	75		
Commercial ²	70	n/a	n/a	n/a		
Industrial premises ²	75	n/a	n/a	n/a		

(1) Time periods as defined in Table 5.5.

(2) Criteria apply when in use. It is assumed that commercial premises are unlikely to be operational outside standard hours.

Nominated equipment for construction work scenarios and the sound power level (SWL) (according to relevant international standards (see Appendix G)), are presented in Table 5.7.

EQUIPMENT	SWL,	NO. OF EQUIPMENT PER SCENARIO					
	dBA	SC01	SC02	SC03	SC04		
Bobcat	104	1	1				
Concrete pump	109			1			
Concrete truck	109			1			
Franna crane	98			1			
Elevated work platform	98	2	2	2	2		

Table 5.7 Sound power levels (SWL)

EQUIPMENT	SWL,	NO. OF EQUIPMENT PER SCENARIO				
	dBA	SC01	SC02	SC03	SC04	
Excavator (5 tonne)	100	1	1		1	
Forklift	104	1	1	1		
Tip truck	108		1	1		
Total dBA SWL per scenario	109	111	114	105		

Predicted noise levels for each scenario are presented in Table 5.8, outlining the worst-case noise level at each sensitive receiver. These predictions are based on the nominated equipment for construction work scenarios and SWL of equipment likely to be used at the site.

The calculations are conservative as they include all equipment operating simultaneously at their closest point to the receiver in a worst case 15-minute period and do not account for terrain or shielding effects. Actual noise levels from the construction site would be expected to be lower.

ID	RECEIVER TYPE	DISTANCE FROM WORKS (m)	NOISE MANAGEMENT LEVEL, dBA L _{eq,15min} ¹			PREDI LEVE	CTED M L PER SO L _{eq,}	AXIMUM CENARIC	NOISE D, dBA	
			SH	OOHW 1	OOHW 2	HNA ¹	SC01	SC02	SC03	SC04
R1	Residential	590 (north)	57	52	45	75	45	484	51	41
R2	Residential	620 (north)	56	51	45	75	45	48	50	41
R3	Residential	1,190 (south west)	44	39	37	75	39	42 ³	45 ²	35
R4	Residential	400 (south east)	54	49	44	75	49	51	54	45
C1	Commercial	570 (north east)	70	n/a	n/a	n/a	46	48	51	42
I1	Industrial	440 (north)	75	n/a	n/a	n/a	48	50	53	44
I2	Industrial	630 (west)	75	n/a	n/a	n/a	45	47	50	41

Table 5.8 Worst-case predicted construction noise levels

(1) Time periods as defined in Table 5.5

(2) Orange shows exceedances of the standard-hours day period.

(3) Blue shows exceedances of the OOHW 1 period.

(4) Green shows exceedances of the OOHW 2 period.

The assessment of construction noise impacts indicates that noise levels are predicted to comply with relevant NMLs where works are conducted during standard hours, with a minor exceedance identified at one receiver – receiver R3 during SC03 (construction of buildings). Where works occur outside standard hours, noise levels are predicted to exceed relevant NMLs at the nearest sensitive residential receivers. During works in OOHW period 1, noise levels are predicted to comply at all receivers with the exception of residential receiver R3 and R4, where exceedances up to 6 dB are predicted during SC02 (excavation) and SC03 (construction of buildings).

During OOHW period 2, exceedances of NMLs are predicted at all four residential receivers, with exceedances up to 10 dB predicted during SC03 (construction of buildings), up to 7 dB during SC02 (excavation), up to 5 dB during SC01 (site establishment and demolition) and a minor exceedance of up to 1 dB predicted at receiver R4 during SC04 (backfilling and demobilisation).

No residential receivers are anticipated to be highly noise affected by the construction activities.

For the nearest non-residential receivers, noise levels are predicted to be within the relevant NMLs criteria for all scenarios. Scenario SC03 (construction of buildings) generates the greatest impact to sensitive receivers.

5.6.4 CONSTRUCTION TRAFFIC NOISE

The RNP provides guidance on assessment of noise impacts from traffic generated by construction activities on sensitive receivers. The existing roads immediately surrounding the proposal are sub-arterial and arterial roads and local roads. Table 5.9 presents a summary of the applicable criteria for residences.

Table 5.9Road traffic noise criteria for residential receivers on existing roads affected by additional traffic from
land use developments

ROAD TYPE	ROAD TRAFFIC NOISE CRITERIA			
	DAY	NIGHT		
Arterial/Sub-arterial/Collector	60 dBA L _{eq 15hr}	55 dBA L _{eq 9hr}		
Local Roads	55 dBA L _{eq 1hr}	50 dBA L _{eq 1hr}		

(1) LAeq 1hr - A-weighted Leq sound level, measured over a specified period of time (1 hour)

(2) LAeq 9hr – A-weighted Leq sound level, measured over a specified period of time (9 hour)

(3) LAeq 15hr – A-weighted Leq sound level, measured over a specified period of time (15 hour)

Construction vehicles accessing the site would temporarily increase the number of traffic movements, and construction traffic would access the site via Picton Road from the Hume Highway. Based on the Traffic and Transport Memorandum (WSP, 2021) prepared for the proposal, it is understood that a maximum of 25 personnel would be required to undertake the proposed works. Up to 5 heavy vehicles would be required per day to deliver equipment and remove material as required. It is assumed that 25 light vehicles and 5 heavy vehicles are required daily to access proposal work sites.

It is assumed that a majority of workers would arrive at site before 7.00 am and depart after 6.00 pm, while deliveries would be spread across the day.

The potential for noise impacts to occur due to light and heavy vehicle movements on public roads generated by the construction work as a result of additional vehicle movements has been qualitatively assessed with respect to existing traffic on Picton Road. Based on data within the Traffic and Transport Memorandum (WSP, 2021), current traffic volumes on Picton Road are in the order of 782 vehicles during peak hour.

Traffic generated by the proposed construction activities is not expected to be significant compared with existing traffic volumes, particularly on Picton Road, and is not anticipated to result in a 2 dB increase to existing traffic noise levels. Therefore, impacts due to the proposal are expected to comply with the RNP criteria.

5.6.5 CONSTRUCTION VIBRATION

Table 5.10 outlines the recommended working distances required for vibration intensive plant from sensitive receivers. These are based off relevant Australian and international standards (see Appendix G).

PLANT ITEM	RATING / DESCRIPTION	MINIMUM WORKING DISTANCE	
		COSMETIC DAMAGE	HUMAN COMFORT
Excavator	(~20t)	2 metres	7 metres
Hydraulic hammer	(900 kg – 12 to 18t excavator)	7 metres	23 metres

Table 5.10 Recommended minimum working distances for vibration intensive plant

The most vibration intensive plant nominated as part of the work is the use of an excavator to jackhammer hard substrate (i.e. rock). All receivers are located outside minimum working distances for cosmetic damage and human comfort. If minimum working distances are complied with, no adverse impacts are expected for structural damage, cosmetic damage or human response on nearby sensitive receivers.

No heritage items or buildings with potential for structural damage were identified within the safe working distances of the footprint, therefore vibration impacts to heritage structures was not considered further.

5.6.6 MITIGATION MEASURES

The CNVS outlines standard measures for mitigating and managing construction noise and vibration to be implemented across all construction proposals where reasonable and feasible. Site specific environmental control measures to reduce impacts of noise and vibration at the site include the following:

- Prior to commencement of works, a Construction Noise and Vibration Management Plan (CNVMP) would be
 prepared and implemented in accordance with the requirements of the ICNG and CNVS. The CNVMP would take
 into consideration measures for reducing the source noise levels of construction equipment by construction planning
 and equipment selection where practicable.
- Works would generally be carried out during standard construction hours (i.e. 7.00 am to 6.00 pm Monday to Friday;
 8.00 am to 1.00 pm Saturdays) as far as practicable. It is recommended that heavy vehicle movements to and from the site be restricted to standard construction hours where feasible.
- Work would be conducted behind temporary hoardings/screens wherever practicable. Installation of construction
 hoarding would take into consideration the location of residential receivers to ensure that 'line of sight' is broken,
 where feasible.
- The CNVMP would outline further measures to reduce noise impact from construction activities including:
 - regularly training workers and contractors (such as at the site induction and toolbox talks) on the importance of
 minimising noise emissions and how to use equipment in ways to minimise noise
 - avoiding any unnecessary noise when carrying out manual operations and when operating plant
 - avoiding/limiting simultaneous operation of noisy plant in discernible range of a sensitive receiver where
 practicable
 - switching off any equipment not in use for extended periods e.g. heavy vehicles engines would be switched off whilst being unloaded
 - restriction of heavy vehicle movements to and from the site to standard (daytime) hours where feasible
 - no idling of delivery trucks
 - keeping truck drivers informed of designated routes, parking locations and acceptable delivery hours for the site
 - compounds and work areas designed to promote one-way traffic so that vehicle reversing movements are minimised
 - minimising talking loudly; no swearing or unnecessary shouting, or loud stereos/radios onsite; no dropping of
 materials from height where practicable, no throwing of metal items and slamming of doors
 - maximising the offset distance between noisy plant and adjacent sensitive receivers
 - using the most suitable equipment necessary for the construction works at any one time
 - directing noise-emitting plant away from sensitive receivers
 - regularly inspecting and maintaining plant to avoid increased noise levels from rattling hatches, loose fittings etc.

5.6.7 ADDITIONAL REQUEST

It is also requested that as part of modifying the existing consent Conditions 2.3 and 2.5 be modified.

Condition 2.3 provides the development must not exceed maximum allowable noise contribution limits specified in Table 1 of that consent. Receivers 4 (390 Picton Road, Maldon) [location 1 in the Compliance Survey (SLR, 2019)] and 2 (300 Picton Road, Maldon) [location 5 in the Compliance Survey (SLR, 2019)] noted in Table 1 of the consent are now on land zoned IN1 General Industrial. It is understood that a recycling plant is located at 390 Picton Road and Fitzsimmons Diesel is located at 300 Picton Road with an associated dwelling. It is requested that 5dB be added to the allowable noise contribution limits for these receivers as these properties are located at the industrial interface (see notes to Table 2.2 of the Noise Policy for Industry (NSW EPA, 2017)). Condition 2.5 requires noise measurements at the most affected point within residential boundaries. Access is not available to some receivers and as such it is requested that the location of noise monitoring shown on Figure 1 (page 5) of the attached Compliance Survey (SLR, 2019) (see Appendix J).

5.7 TRAFFIC

The Traffic and Transport Technical Memorandum addresses traffic and transport impacts of the proposal (see Appendix K).

5.7.1 EXISTING ENVIRONMENT

The site is located in an industrial zone with adjacent residential and rural areas around Picton, Douglas Park and Wilton.

Due to current Stay-At-Home orders to reduce the spread of COVID-19, a site visit was not able to be conducted to inform the traffic assessment. Current traffic surveys are deemed unsuitable as they would likely show an inaccurate measure of very low traffic volumes with the state in lockdown. Therefore, historical traffic survey data has been provided by Trans Traffic Survey (TTS) from Tuesday 10 March 2020 (prior to the COVID pandemic). This survey was conducted at the Picton Road / Menangle Road intersection upstream of the site, has been reviewed and used to assess impact of the proposed development. This data enabled an investigation into the worst-case scenario for traffic and helped to inform potential impacts to the surrounding network.

Based on these traffic surveys, peak hours for the site are:

- AM peak: 7:30 am 8:30 am
- PM peak: 4:15 pm 5:15 pm

For this assessment, a 1% growth per annum (p.a.) has been applied as a conservative measure to estimate the future background volumes for 2030 scenarios. The following scenarios have been modelled to assess impacts of the expanded site:

- 2020 Existing existing layout and arrangement using 2020 survey data (TTS, 2020)
- 2020 with Development existing layout and arrangement using 2020 survey data (TSS, 2020) plus development generated traffic
- 2030 Future Base existing layout and arrangement using 2020 survey data (TSS, 2020) with 1% p.a. growth rate to 2030
- 2030 with Development existing layout and arrangement using 2020 survey data (TSS, 2020) with 1% p.a. growth rate to 2030 plus development generated traffic.

The previous 2004 development application report, *Report on the Assessment Development Application No DA-318-12-2004-I* (Department of Infrastructure, Planning and Natural Resources, July 2005) ('2004 Report'), has been reviewed with regard to the traffic and transport impacts. Some information has been brought through in this assessment including assumptions around the original development's traffic generation numbers for both staff and visitors. Similarly, directional splits of this traffic have been brought through in this investigation with the assumption that these traffic movements have not changed.

5.7.1.1 TRAFFIC GENERATION

The proposal is relatively small in comparison to the existing development. Likely additional traffic generated provided by the client are as follows:

- 5 trucks (heavy vehicles [HV]) per day
- 10 passenger vehicles (light vehicles [LV]) per day.

The size and purpose of the proposal indicate the proposed combined warehouse extension and engineering area would impact employees only and thus no additional visitor numbers have been included. As such, it is assumed that the generated vehicle numbers all enter the site during the AM peak and all exit during the PM peak.

The 2004 Report assumes 28 (52%) of the generated 54 employee light vehicles access the site from the west, with 26 (48%) light vehicles accessing from the east. All heavy vehicles are assumed to access the site from the east via the Hume Highway only, originating from Metropolitan Sydney. This means all entering construction vehicles to site enter turning left in from Picton Road and exit right out onto Picton Road.

As the site has not expanded since 2004, it is assumed that the development's traffic generation has not changed. Considering this, Table 5.11 shows existing traffic generation at the site.

 Table 5.11
 Existing site traffic generation

	EMPLOYEES	VISITORS	TOTAL
Light Vehicles (LV)	54	21	75
Heavy Vehicles (HV)	33	2	35

Total traffic generation of the development, including existing and proposed based on the proposal, would therefore be 85 light vehicles and 40 heavy vehicles, with an assumption that all of these enter the site during the AM peak and all exit during the PM peak, to represent a worst-case scenario.

5.7.2 OPERATION

Operation of the site access intersection has been assessed using the SIDRA Intersection modelling software, adopting the estimated 2020 base traffic volumes and the site generated traffic volumes for a typical weekday. An aerial image of the intersection is provided in Figure 5.3 with the SIDRA layout provided in Figure 5.4.



Figure 5.3 Intersection of Picton Road and site access (aerial)





The *Traffic Modelling Guidelines* (Roads and Maritime Services, 2013) specify that intersection operation is generally measured by degree of saturation, Level of Service and 95th percentile base of queue distance. SIDRA Intersection measures these elements, with the intersection Level of Service being a measure of the average delay at the intersection, as defined by the criteria set out in Table 5.12.

LEVEL OF SERVICE	AVERAGE DELAY (SECONDS PER VEHICLE)	CRITERIA FOR TRAFFIC SIGNALS	CRITERIA FOR GIVE WAY AND STOP SIGNS
А	<14	Good operation	Good operation
В	15 to 28	Good operation with acceptable delays and spare capacity	Good operation with acceptable delays and spare capacity
С	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Near capacity	Near capacity and accident study required
Е	57 to 70	At capacity, at signals, incidents will cause excessive delays	At capacity, requires other control mode
F	>70	Extra capacity required	At capacity, requires other control mode

Table 5.12 SIDRA Intersection Level of Service criteria

Source: Adopted from Guide to Traffic Generating Developments (Roads and Maritime Services, 2002)

The Traffic and Transport Memorandum (Appendix K) presents a detailed methodology and summary for assessment of the intersection during the weekday AM and PM peak hours (see Table 2.2 in Appendix K), noting the Intersection Level of Service criteria.

The assessment found that the existing (2020 Existing Scenario) site access intersection should generally operate well during the AM peak hour (Level of Service A), and with diminished yet acceptable performance during the PM Peak hour (Level of Service C). This is due largely to the delay and queues experienced by right turning vehicles out of the site access and across opposing westbound traffic volumes. The 2020 development scenarios show a similar trend with the AM and PM peaks performing at Level of Service A and C respectively, with no distinguishable change in the AM Peak, and a two second increase in delay and additional queuing in the PM Peak.

Future 2030 scenarios show negligible increases in delay for the AM Peaks. This is due to the background growth of 1% per annum, expected to operate with a maintained Level of Service A and negligible increases in delay and queueing.

The 2030 PM peak, under both existing and development scenarios, shows worsened performance with increases in average delay and queue metres. This is likely due to heavy vehicle movements out of the site given the opposing westbound through traffic volumes increasing. In these scenarios, this remains an acceptable operational performance (Level of Service D) given the main movements at this intersection are east-west through movements that are not impacted by the development's traffic.

5.7.3 OPERATIONAL IMPACTS

Key operational impacts are listed below:

- minor increase in delay for right turn movements into the site access during both the AM and PM peaks between 2020 and 2030 scenarios due to slight increase in development traffic
- key impact is during the PM peak hour with right turning vehicles exiting site having to compete with opposing westbound through traffic of up to 782 vehicles in 2020 and 902 vehicles in 2030

 2020 and 2030 PM peak diminished performance is largely due to background traffic growth along Picton Road with additional growth potentially requiring intersection treatments to address worsening conditions for site access.

5.7.4 CONSTRUCTION

The proponent has outlined that the construction workforce would include a maximum of 15 to 25 staff per day, at an average of 10 to 15. The construction plant required for works include:

- 5 tonne excavator
- Bobcat
- Tip truck
- 2.5 tonne forklift
- Franna crane
- Concrete truck & pump
- 2 x 19' EWP.

The above equipment represents the likely construction vehicles on site, including a maximum of 25 light vehicle and five heavy vehicle inbound movements during the AM peak and outbound during the PM peak.

5.7.5 CONSTRUCTION IMPACTS

Given that the total proposed construction traffic volumes (25 LV, 5 HV) is less than that proposed to be generated by the development with upgrades (85 LV, 40 HV), quantitative traffic assessment has not been undertaken for the construction period. Impacts of construction traffic would not exceed those noted within the 2020 development scenario (see Table 2.2 of Appendix K).

All construction vehicles are understood to access the site via the Hume Highway; however, the likely impacts would be minimal based on low volumes of the generated construction traffic.

Potential impacts would likely include:

- Construction vehicles exiting during the PM peak turning right out of the site (across opposing westbound traffic flows) may experience some increased delays.
- Potential delays or congestion at the Hume Highway's western ramps as vehicles exit the highway during the AM
 peak, merging with westbound traffic along Picton Road. Similarly, potential worsening performance of the
 southbound on-ramp with additional construction vehicles at this location mixing with existing vehicles.

5.7.6 MITIGATION MEASURES

The operational impacts are largely due to background traffic growth along Picton Road and the need for vehicles entering and exiting the site to cross the westbound through movement.

Potential intersection treatments such as a formalised basic left turn lane with a longer lane length may be appropriate to increase storage capacity on the southern leg (Allied Mills access). However, these measures would not be required until 2030, based on traffic modelling. Such treatments to address greater background growth up to and beyond 2030 would require further investigation at a later stage.

5.8 WASTEWATER

The site is not connected to a reticulated sewerage network, therefore requires onsite treatment of effluent wastewater generated by the facility. An onsite wastewater assessment report was undertaken by Harris Environmental Consultants (see Appendix F). The relevant guidelines used to assess the site and design include:

- Standards Australia, 2012, AS/NZ 1547:2012 On-site wastewater management.
- WaterNSW, 2019, Designing and Installing On Site Wastewater Systems. A Water NSW Current Recommended Practice.

- NSW Department of Environment and Conservation (DEC), 2004, Use of Effluent by Irrigation.
- Department of Land and Water Conservation New South Wales, 1998, *The Constructed Wetlands Manual*, Volume 1.

The addition of 10 staff would increase the domestic wastewater for permanent employees. The proposed development would also generate process wastewater as the mixing equipment within the kitchen facility would need to be washed after each mixing batch.

The wastewater management report addresses both wastewater sources separately. For the domestic wastewater, it is proposed that continued use of the existing Aerated Wastewater Treatment System (AWTS) onsite would be sufficient. However, the system would require a larger irrigation disposal area to accommodate the increase in wastewater production.

For the process wastewater generated by the production and kitchen facilities, it is proposed that a new wastewater management system and disposal area would be installed onsite.

5.8.1 EXISTING ENVIRONMENT

Fieldwork was undertaken on 3 September 2021 to support the wastewater assessment report. This site inspection focussed on investigation of the soils, topography and hydrology within the existing and proposed disposal area(s) onsite, observed on the day of inspection. Soil samples and photos of the site were taken for further analysis.

The site proposed for wastewater disposal includes cleared land under managed grassland. The slope at the disposal site was recorded as approximately eight per cent, listed as a moderate limitation for disposal onsite. The proposed irrigation for both the domestic and process wastewater is more than 100 metres from the nearest intermittent watercourse. There are no known groundwater bores within 100 metres of the proposed effluent management area (Department of Primary Industries, 2021 and Office of Water, 2021). As such, the proposed irrigation area conforms to the DEC (2004) criteria for both low and high strength effluent and WaterNSW (2019) buffers for domestic wastewater.

Soil characteristics were assessed in the field and in the laboratory to determine limiting factors for effluent disposal, such as the design irrigation rate (DIR) and permeability class, of the soils onsite. The DIR is defined as an aerial loading rate, expressed in $L/m^2/day$ (WaterNSW, 2019), and the permeability class defines the characteristic of a soil texture, structure and particle size and that governs the rate at which water moves through it (WaterNSW, 2019).

5.8.2 DOMESTIC WASTEWATER

The existing treatment system for domestic wastewater onsite is understood to be an AWTS that receives 2000 litres per day from the facility with the current use of amenities by 40 staff. The current irrigation area is 1,250m² and consists of two rows of four sprinklers that are manually controlled by gate valves. The proposed expansion would increase the amount of domestic wastewater generated from the amenities with the addition of 10 staff expected to be employed to operate the new plant.

The 10 additional staff are likely to generate additional wastewater in the same proportions as the current use. The irrigation area needed to manage the design volume of 3,000 litres per day was calculated using monthly water and nutrient balance. Considering the current domestic wastewater irrigation area is 1,250m², an additional 500m² is proposed as a precautionary measure, increasing the total recommended irrigation area to 1,750m².

5.8.3 PROCESS WASTEWATER

With the expansion of the Allied Pinnacle facility, there would be two batches of product mixed per day, and each batch is estimated to require 1,500 litres for cleaning equipment. There is the possibility this volume could increase to four batches per day into the future, and as such, the design of the wastewater management system has calculated for up to 6,000 litres per day of processing wastewater to be produced.

As the facility is not currently producing any wastewater, it was not possible to obtain samples of typical wastewater. Subsequently, the composition of process wastewater onsite has been estimated following assessment as outlined in chapter 9 of Appendix F. This estimation of composition outlines the anticipated parameters of the process wastewater to determine the suitability and limitations of a new system to installed onsite for the wastewater treatment. In accordance with DEC (2004), the wastewater would be treated to a standard that would allow it to be characterised as low strength effluent for all constituents (including biological oxygen demand, total nitrogen and total phosphorus), except for total dissolved solids, which would fall within the medium strength effluent concentration.

5.8.3.1 PROPOSED PROCESS WASTEWATER TREATMENT

The proposed process wastewater treatment system for the site can be described as a five-stage design. A schematic diagram of the process is included as Sheet Number 3 of Appendix F while the detailed design plan is included as Figure 5.5.

The land to be irrigated is a grassed slope downslope of the domestic wastewater irrigation area and would be an area of 2,750m². This land has a slope of less than eight per cent and is located more than 100 metres from the nearest drainage depression. An upslope stormwater diversion bank is required to keep upslope stormwater from entering the irrigation area.

The proposed wastewater management system would consist of:

- Stage 1 source control within the proposed facility
- Stage 2 1,500 litre grease trap
- Stage 3a 6,000 litre aeration tank
- Stage 3b 6,000 litre settlement tank
- Stage 3c 6,000 litre pump well / emergency storage
- Stage 4 biological treatment, using either a subsurface reedbed or floating treatment wetland
- Stage $5 2,750 \text{m}^2$ of spray irrigation.

Additional assessment and approval would be required for this proposed process wastewater treatment system, including consideration of Aboriginal heritage.





Project No PS124818 Allied Pinnacle Flour and Maize Mill Proposed Modification (DA-318-12-2004) Hunt Architects

6 SECTION 4.15(1) MATTERS

Section 4.55(3) of the EP&A Act requires relevant matters referred to in section 4.15(1) to be considered for a proposed modification. Relevant matters of Section 4.15(1) are considered in Table 6.1.

Table 6.1Section 4.15(1) matters

MATTER	RESPONSE	SECTION WHERE ADDRESSED
Any environmental planning instrument	Relevant planning instruments are discussed in the SEE.	Section 4 Statutory Planning.
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 (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved)	The are no known proposed instruments that are relevant to the proposal.	N/A
Any development control plan	Relevant clauses of the Wollondilly DCP 2016 have been considered within this modification report and the proposal design.	Section 4.5.
Any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4	The are no known planning agreements or draft planning agreements that are relevant to the proposal.	N/A
The regulations (to the extent that they prescribe matters for the purposes of this paragraph)	No additional aspects of the regulations are considered applicable to the proposal.	N/A
Likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality	The existing environmental and potential impacts that may arise from the proposal have been assessed within this modification report. The proposal would have minor impacts on environmental values of the site, as the proposal would continue the existing land use and function of the mill facility. Impacts to the receiving environment during the construction phase of the proposal would be short-term and minor. The implementation of site-specific mitigation measures would minimise potential operational impacts.	Environmental impacts are assessed in Section 5. Mitigation measures are also included.

MATTER	RESPONSE	SECTION WHERE ADDRESSED
Suitability of the site for the development	The site hosts the existing Allied Pinnacle flour and maize mill, approved under DA-318-12-2004 for the construction and operation of a 300,000 tonne per year mill, with ancillary facilities. The proposal is for the expansion of the existing development and would not alter the existing land use onsite. The expansion of the site is consistent with the zoning of the site under the Wollondilly LEP 2011.	Section 2 describes the development site, including existing infrastructure. Section 4.4 assesses the proposal with regard to relevant clauses of the Wollondilly LEP 2011.
Submissions made in accordance with this Act or the regulations	The proponent would consider any submissions made.	
The public interest	The proposal is an extension to an existing approved facility and is considered to be in the public interest.	

7 CONCLUSION

Hunt Architects on behalf of Allied Pinnacle Pty Ltd (Allied Pinnacle) is seeking to modify the approval for the existing flour and maize mill located at 330 Picton Road, Maldon, NSW within the Wollondilly local government area (Lot 1, DP 1128013). This modification report has been prepared as part of the request to modify DA-318-12-2004. The proposed modification is seeking approval under Section 4.55(1A) of the EP&A Act to extend the existing building to the northwest.

The proposal would be located in the IN3 – Heavy Industrial zone and is permitted with consent. Relevant planning matters have been addressed in this modification report including the EP&A Act, Wollondilly DCP 2016 and associated environmental impacts.

8 **REFERENCES**

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9 LIMITATIONS

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